

EUROPEAN UNION



Committee of the Regions

The impact of demographic change on European regions

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List of abbreviations

AWG	EPC Working Group on Ageing Populations and Sustainability
BBSR	Bundesinstitut für Bau-, Stadt- und Raumforschung
CAP	Common Agricultural Policy
CEEC	Central and Eastern European Country
CICOPA	International Organisation of Industrial, Artisanal and Service Producers' Co-operatives
EPC	Economic Policy Committee
ESIF	European Structural and Investment Funds
ESPON	European Observation Network for Territorial Development and Cohesion
EU27	European Union of 27 Member States, before the accession of Croatia in 2013
EU28	European Union of 28 Member States
GDP	Gross Domestic Product
GIS	Geographic Information System
GOe	Global Observatory for eHealth
ICT	Information and Communication Technology
LAU2	Local Area Unit
LED	Light-Emitting Diode
LRA	Local and Regional Authority
NGO	Non-Governmental Organisation
NUTS	Nomenclature of territorial units for statistics
OECD	Organisation for Economic Co-operation and Development
PPP	Public-Private Partnership
SGI	Service of General Interest
TMBLV	Thuringian Ministry for Construction, Regional Development and Transport
WHO	World Health Organisation
WWOOF	World-Wide Opportunities on Organic Farms

Executive summary

The core long-term structural demographic change in Europe is ageing: the current ratio of working age population to old dependent population below 4 to 1 will, according to Eurostat projections, be replaced by a ratio of 2 to 1 by 2050.

Demographic change in individual Local and Regional Authorities (LRAs) will depend on their capacity to attract the working-age population. However, concentrations of seniors in specific localities and regions do not necessarily constitute a challenge or handicap, insofar as this population's income from retirement schemes provides the basis for the development of a wide range of economic activities.

The observation of demographic trends at the NUTS2 and NUTS3 levels between 2000 and 2014 reveals demographic decline across large parts of Eastern Europe, and especially in the Baltic States, in Bulgaria and Romania, eastern German Länder, Slovakia and Croatia. In most of these areas, 'islands' of demographic growth can be observed around capital and metropolitan cities. Western European regions experience more limited demographic decline observable at the regional level: southern Italy, eastern part of the Iberian Peninsula, inner parts of France and northern Scandinavia are the main areas concerned. The overall picture can then be synthesised of east-west polarisation on the one hand, and an axis of population loss or stagnation running from eastern Finland and the Baltic States, through Germany and France to Portugal.

In a short-time perspective, the observation of demographic changes before and after the start of the sub-prime crisis shows that the economic downturn has accentuated polarising trends both at the European and national level. At the European level, population decline in selected CEECs has been accentuated. Within Member States, contrasts are accentuated between metropolitan and regions perceived as offering attractive living environments on the one hand, and declining areas on the other. These combined developments imply that economic recession and lower growth rates tend to accentuate the challenge of population shrinkage at the regional level.

However, European initiatives addressing demographic change therefore primarily address ageing. There are only a limited number of initiatives that focus on the socio-economic implications of shrinking and demographic decline.

A number of European LRAs are confronted with a combination of challenges:

- Austerity measures and reductions in tax revenues;
- Transfers of competence from central authorities, e.g. with a wider responsibility for service provision;
- Changes in demographic patterns and trends making it necessary to adapt service provision levels and infrastructure.

The capacity of individual LRAs to address these challenges depends on factors such as fiscal autonomy, influence in decision-making processes and operational responsibility for providing and procuring services of general interest (SGIs). However, some main measures can be identified, in different fields:

- in health care, more ambitious prevention measures and integrated care policies combined with new technologies such as telemedical services make it possible to envisage a more efficient use of public funds;
- active ageing and lifelong learning can contribute to social inclusion in an ageing population, thereby reducing the need for public measures to compensate for isolation;
- education and lifelong learning can limit the mismatch between job offer and competencies of the available workforce;
- labour market policies, seeking to improve work-life balance (e.g. through so-called ‘time policies’), to promote teleworking and attract independent professionals (so-called ‘iPros’) and to improve working conditions can help to ensure that the production capacity of the working-age population is used fully.

It also needs to be kept in mind that demographic change entails a number of development opportunities for LRAs. The so-called ‘silver economy’, i.e. economic opportunities brought by expenditure related to population ageing and the needs of citizens over the age of 50, is an increasingly important dimension of development strategies for a number of LRAs. Alternative forms of production of services are also envisaged, e.g. through volunteering, civic service or privately organised forms of volunteering can help to organise a more inclusive economy.

To understand the concrete challenges of LRAs in the face of demographic change, it is essential to incorporate the circulation of income between regions and localities. Based on notions of ‘residential economy’ and ‘presential economy’, economists have demonstrated that attracting residents and visitors

may improve economic development perspectives of individual localities and regions more efficiently, when compared to actions promoting competitive, export-oriented industries. This is because the population present in any given territory benefits from transfer incomes of different types, and that these forms of income represent a much larger part of the economy than income from export-oriented activities. To help LRAs in addressing demographic change, it is therefore essential to improve the understanding of how these flows of income are organised in different parts of Europe and may evolve over time. Remittances are an important component of these flows in some parts of Europe. For example, they generate significant inflows of revenue in some rural parts of Romania where they contribute to productive investments.

Some LRAs work on territorial self-perception and seek to brand their locality or region among external audiences in view of impacting demographic trends. While evaluations of branding efforts show mixed results, work on self-perception is essential to counter negative spirals of decline in some areas. The conclusion is that such efforts need to be combined, e.g. with a more active use of social media.

The recommendations of the study emphasize the importance of wider approaches to address demographic changes at the level of LRAs. Considering new needs and possibilities resulting from ageing is only one component. To compensate for a relatively less important working-age population, one can consider the diversity of reasons for which some parts of local and regional human capital is under-utilised. European-level initiatives can play an important role promoting thinking ‘out of the box’ in this regard. This includes efforts to encourage closer cooperation with private and social economic actors.

Introduction

Demographic developments in Europe operate within different time frames, and different geographical levels, and are multi-faceted. Considering time-frames, the core long-term structural development is ageing: the old-age dependency ratio in EU28 has grown from 23.6% in 2006 to 28.1% in 2014. Eurostat projects that it will reach 39% in 2030, and stabilise around 50% from 2050. This implies that the current ratio of working age population to old dependent population below 4 to 1 will be replaced by a ratio of 2 to 1.

The so-called ‘migrant crisis’ from 2015 illustrates how short-term demographic developments may generate significant challenges for national, regional and local authorities. This crisis also illustrates how the different dimensions of demographic developments – in this case linked to cultural integration, additional expenses for public authorities and the possibility of limiting ageing trends – can be difficult to synthesise and approach jointly in policy debates.

The effects on the economic crisis on demographic development are also multifaceted. While migration flows from Central and Eastern European Countries (CEECs) to Western Europe have been reduced, they have intensified between southern European countries and less hardly hit parts of northern Europe. Demographic trends are in these respects strongly connected to economic developments: while countries that have maintained relatively steady growth in spite of the crisis (e.g. Poland, Romania and Bulgaria) have experienced return migration, other countries experienced out-migration as a result of recession. In general, one observes that European economic convergence observed since the late 1980s came to a halt as a result of the crisis. This will have implications in terms of future population movements between European regions and countries.

In the interaction between demographic development and the economy, a number of parameters can be considered. First, employment rates are of central importance. Age dependency ratios are of limited significance as long as a large part of the working-age population is **excluded from the labour market**: the real issue is the number of economically active persons that can contribute to income generation to cover the needs of the non-economic population. **Individual accumulation of capital** is also a significant parameter: the economically inactive population will, to a varying degree, be able to cover its own needs depending on the capital it has accumulated and the revenue this capital generates. Additionally, the **productivity of the economically active population** needs to be considered: high productivity can compensate for unfavourable age dependency ratios. Finally, the extent to which the basic needs

of an ageing population can be covered will depend on **fiscal mechanisms of solidarity**, between generations as well as between social groups.

This illustrates why challenges of LRAs in the face of demographic change cannot be considered in isolation of other issues. It is necessary to open up the debate. Addressing the challenge of demographic change implies considering issues such as the capacity of European economies to generate full employment, the functioning of labour markets in a knowledge economy that requires lifelong learning and flexibility, the circulation of income between localities and regions and individual accumulation of capital.

Typically, academic analyses of the impact of immigration on income per capita find that this depends on the economic context. It is, for example, concluded that it can be positive under the condition that employment rates remain high (see e.g. Muysken (2008)). However, this also presupposes that in-migrants are well-integrated in the labour market, which has up to now not been the case when considering the immigrant population as a whole (Cuaresma Crespo, Huber, and Raggl 2015). These studies overall indicate that there are no ‘easy fixes’ to ageing and that this is a structural trend to which LRAs as well as national authorities need to prepare. However, this does not imply that there are no policy measures to alleviate ageing and to limit its economic and social impacts.

In their daily activities, LRAs have a limited influence on immigration policy, as well as on generally prevailing economic principles referred to above. They need to provide services to a population that may be ageing, increasing or shrinking. The social and cultural characteristics of this population can vary over time, and segregation may occur. Its mobility patterns and lifestyle preferences can evolve, generating the need to adapt existing services. In parallel, in the context of budgetary austerity, national authorities in a number of countries widen the fields of responsibility of LRAs, while budgets remain limited or are cut back. There is therefore an increasing demand for innovative solutions to solve the seemingly ‘impossible equation’ of reduced budgets and increasing demand.

The objective of the present study therefore is to feed into debates on how LRAs may best address demographic changes and prepare for foreseeable future evolutions on different levels:

- Chapter 1 provides an overview of observed patterns, trends and current projections, as well as a brief overview of current EU initiatives that address demographic change;

- Chapter 2 considers how demographic change may generate challenges for LRAs, especially in terms of service provision, and presents solutions on how these challenges may be addressed;
- Chapter 3 describes local and regional development opportunities and challenges that may be linked to demographic change, and explores different ways in which demographic change can be approached as a development lever;
- Chapter 4 presents recommendations based on the findings of the report.

1 Overview of demographic changes and projections

Demographic changes are the object of intense policy discussions. These debates are multifaceted as they are linked to issues as diverse as pension systems, labour markets, cultural identity and cohesion, gender balance in social and economic contexts, services of general interest, quality of life, public expenditure levels, territorial cohesion and balanced regional development. The present section seeks to synthesise the shared evidence based for these diverse discussions, with a focus on patterns, trends and projects at the regional level.

The overview is based on a combination of results from existing studies and new elaborations from official sources. The objective is to provide a backcloth against which challenges to be addressed and examples of good practice can be assessed.

Evidence has been based on identified and interconnected major demographic processes and challenges:

- ageing, as a combined result of ‘baby boom generations’ reaching the age of retirement and of declining fertility rates;
- polarisation, i.e. a concentration of population in urban and metropolitan centres combined with demographic decline in remote areas;
- as a result, depopulation in selected rural areas (some authors prefer the term ‘thinning out’ of population, as it is a process of slow decline that generates challenges for LRAs, rather than a presupposed emptying of certain territories (see Aasbrenn, 1989);
- shrinking at the level of entire regions, identified to require a change of paradigm in thinking around territorial development when policies to prepare for ecological consequences of land abandonment and scaling down public services (European Parliament, 2008);
- over-concentration, congestion and diseconomies of scale: as highlighted in the Barca report *An Agenda for a reformed cohesion policy* (Barca, 2009), the OECD identifies congestion costs in very large metropolitan areas (OECD, 2006). However, this is linked to urban form as much as size, sprawl being a major problem e.g. identified in the European Commission’s *Cities of Tomorrow* report (European Commission, 2011);

- extra- and intra-European migration, as a source of opportunities to alleviate effects of above mentioned process and as a challenge in terms of short term costs, social and cultural integration and of coordination of policies at the European level.

Demographic challenges can be approached both in terms of resulting challenges for individual localities and regions, and from the perspective of territorial cohesion. The lack of a definition of territorial cohesion (Böhme et al., 2015) implies that the issue of territorial cohesion is rather discussed in terms of patterns and trends that would be recognised as incompatible with a territorially balanced and sustainable development. While the Territorial Agenda 2020 promotes “*polycentric and balanced territorial development*” and “*integrated development in cities, rural and specific regions*” the policy levers that would make it possible to arrive at these objective remain difficult to identify and implement.

Section 1.1 focuses on spatial patterns of demographic change, with a focus on different scales and types of territories such as metropolitan, urban and rural areas. The following sections then consider the different components of demographic change and their respective contribution to overall population developments: natural change (section 1.2), gender balance (section 1.3) and migration (section 1.4). Finally, section 1.5 presents different population projections at the regional level.

1.1 Overall demographic trends in Europe and its neighbourhood

This section describes spatial patterns of demographic change with a focus on the different scales at which these developments can be observed and analysed.

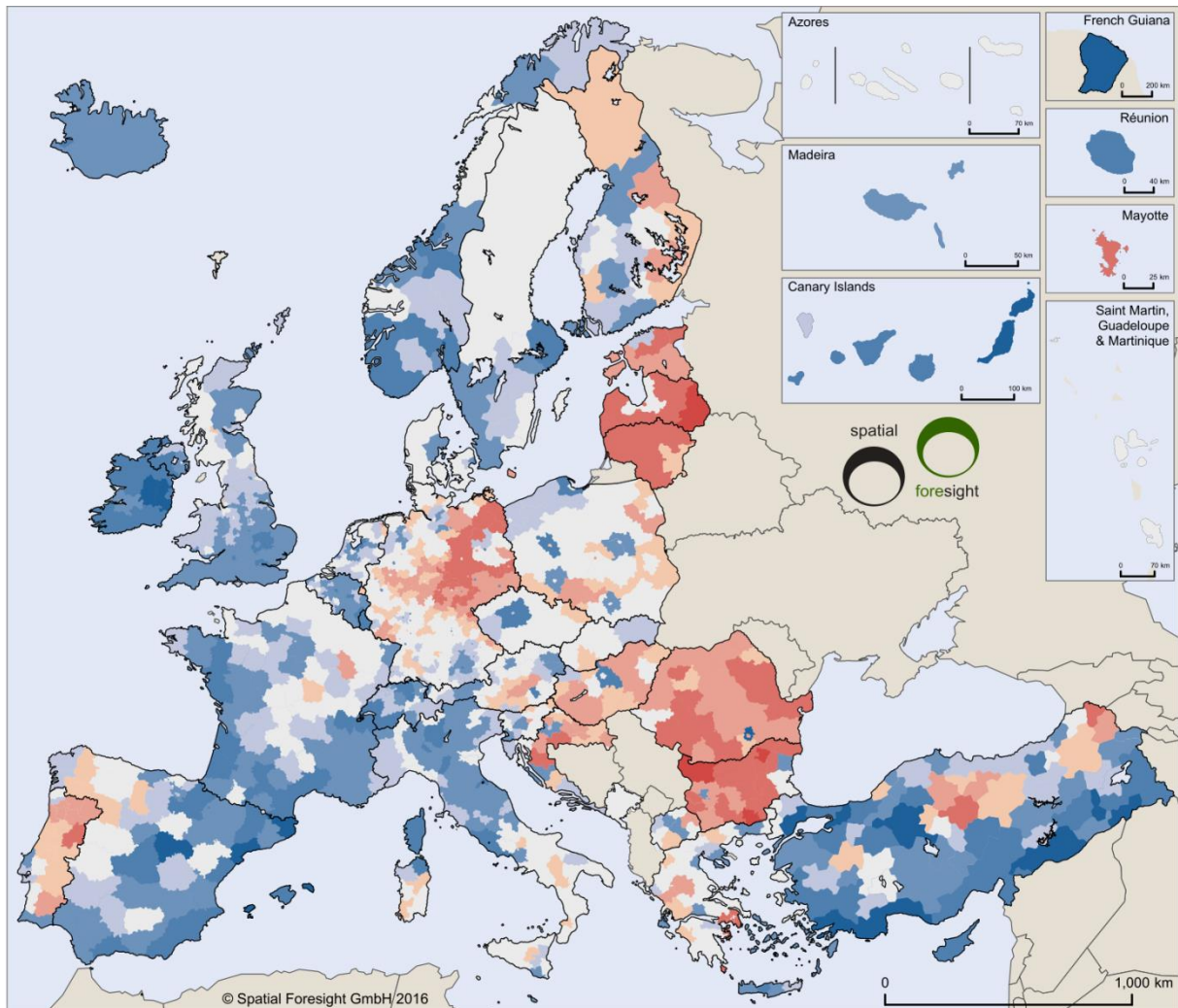
Over the past 10 years, the overall population development was rather modest in Europe compared to the previous 50 years (European Commission, 2014a). Since 2000, the population of EU28 has grown by around 0.5% per year. Rates are similar in most advanced economies but modest compared to other parts of the world (ESPON, 2014a). However, the growth comes at a cost, meaning that it is unevenly distributed in its components and in its structure.

1.1.1 At the level of NUTS 2 and NUTS 3 regions

The observation of demographic trends at the NUTS2 and NUTS3 levels between 2000 and 2014 reveals demographic decline across large parts of Central and Eastern Europe, and especially in the Baltic States, in Bulgaria and Romania, eastern German Länder, Slovakia and Croatia. In most of these areas, ‘islands’ of demographic growth can be observed around capital and metropolitan cities. Western European regions experience more limited demographic decline observable at the regional level: southern Italy, eastern part of the Iberian Peninsula, inner parts of France and northern Scandinavia are the main areas concerned. The overall picture can then be synthesised of east-west polarisation on the one hand, and an axis of population loss or stagnation running from eastern Finland and the Baltic States, through German and France to Portugal.

Comparisons to previous periods (see Figure 2), show that this decline in Central and Eastern Europe constitutes a new trend, with the exception of eastern German Länder. Population decline has already been relatively constant in northern Scandinavia, inner parts of the Iberian Peninsula and central France since the 1960s. Inversely, population has been growing steadily in the so-called European core axis running from southern England to northern Italy as well as along the Mediterranean coast from southern Spain to Naples in Italy.

Figure 1. Population change between 2000 and 2014 by NUTS 3 regions

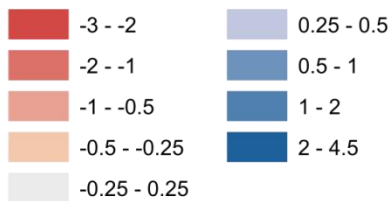


Administrative boundaries: Spatial Foresight and University of Geneva based on material from Eurostat GISCO, the GADM database and the EEA.

Data: Eurostat (demo_r_pjangrp3).

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Annual average population change from 2000 to 2014 in %



Data for AT, IT, LV, HR, HU and MT from 2001 - 2014.
 Data for SK, ES, CZ, UKD6, UKD61, UKD62, UKD63, UKD71, UKE44, UKE45, UKF24, UKF25, UKG36, UKG37, UKG38, UKG39, UKH24 and UKH25 from 2002 - 2014.
 Data for NL, SI and IS from 2003 - 2014.
 Data for BE335 and BE336 from 2004 - 2014.
 Data for NO011 and NO012 from 2005 - 2014.
 Data for DK from 2007 - 2014.
 Data for TR from 2008 - 2014.
 Missing data for parts of DED2, DED4, DED5 and DEE0 was substituted with data from the next higher NUTS level.

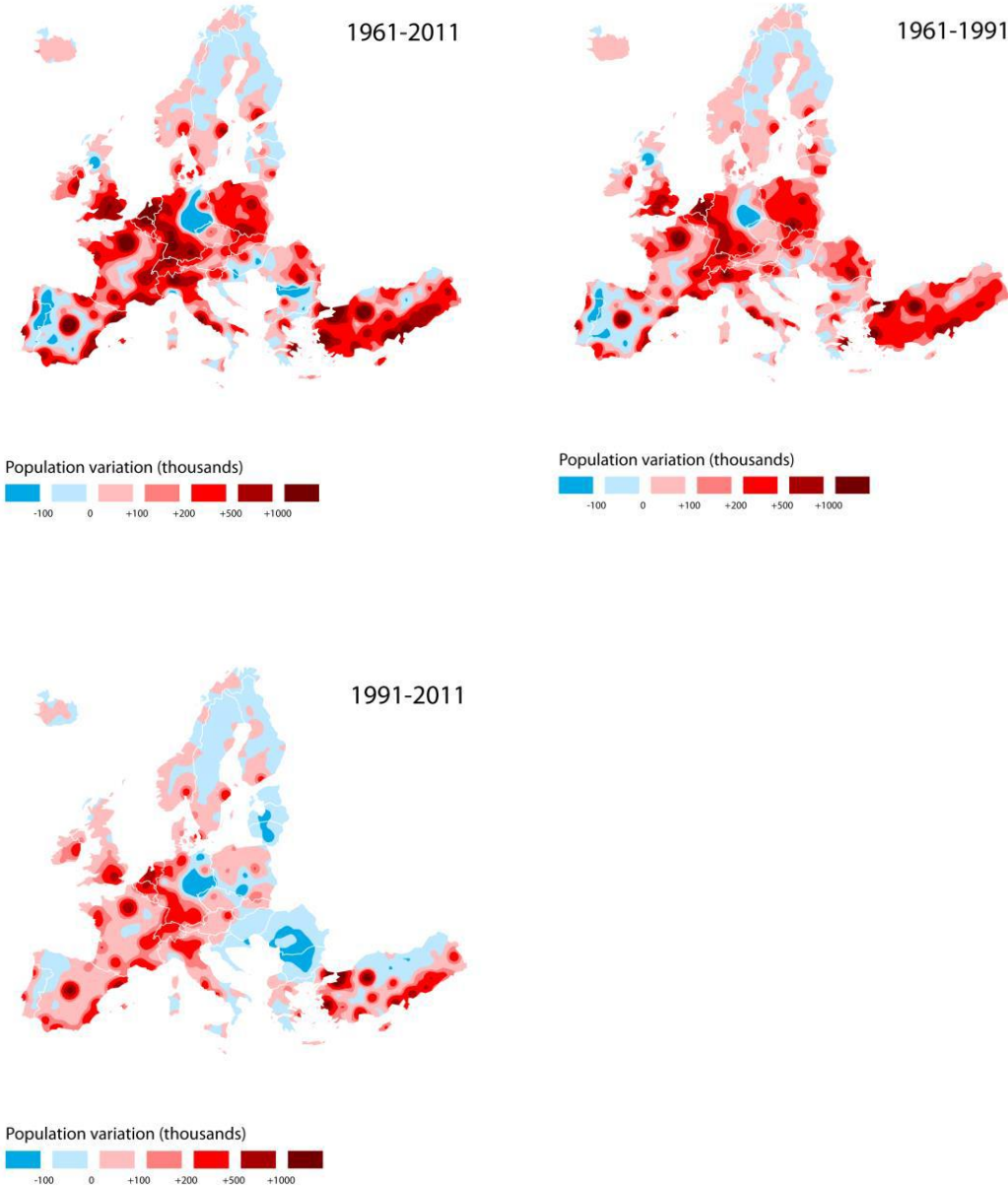
Source: Spatial Foresight.

Figure 3 shows the annual average population change in Europe in the pre-economic crisis years from 2004 to 2009. With the exception of central peripheral areas and Portugal, population growth is observed in large parts of western Europe, and more particularly in Ireland, the Mediterranean and western parts of Spain and western and south-eastern France and northern Italy, Belgium and southern Scandinavia. The growth of Oulu in northern Finland is also notable. Inversely, most of Germany and Portugal experience demographic decline. In Central and Eastern Europe, population growth is concentrated around capitals and other major cities, but is also significant across most of the Czech Republic. Population decline is strong in the Baltic States, Bulgaria, the eastern German Länder and eastern Hungary.

As illustrated by Figure 3 and Figure 4, there were significant changes in patterns of demographic growth after the economic crisis. The most important general patterns are a strengthening of demographic decline in areas that already experienced such decline in the pre-crisis years. This especially concerns Romania, Estonia, Croatia, Hungary, large parts of Germany and Greece. In Spain, previous population growth is replaced by decline across most of the country. In the rest of Europe, demographic growth is concentrated around cities and particularly attractive areas such as coastline. This change is striking in France, where population growth is now limited to regions along the Atlantic coast, in Languedoc-Roussillon and in Rhône-Alpes in addition to the Paris region (Île-de-France).

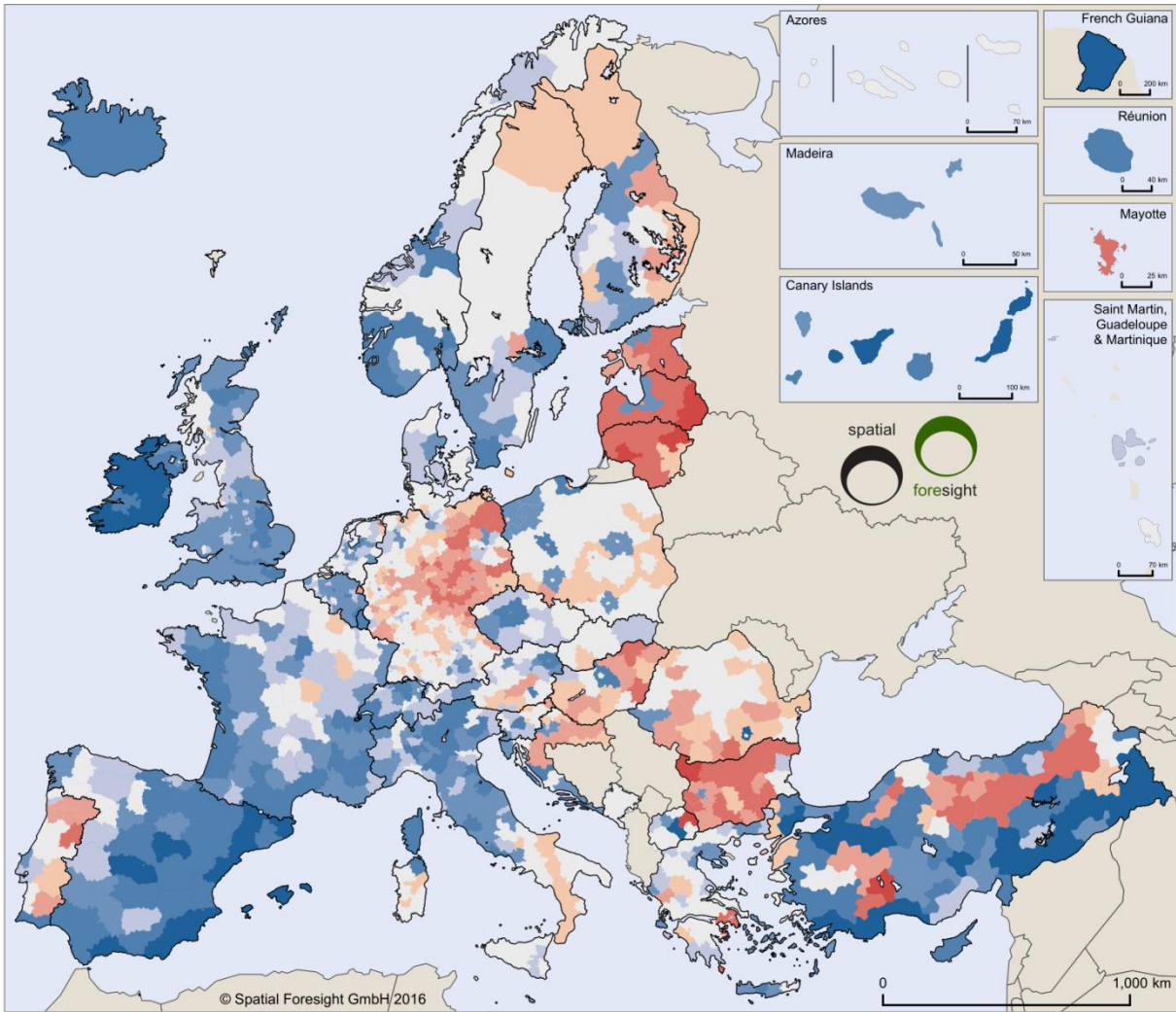
The economic downturn has therefore accentuated polarising trends both at the European and national level. At the European level, population decline in selected CEECs has been accentuated. Within Member States, contrasts are accentuated between metropolitan and regions perceived as offering attractive living environments on the one hand, and declining areas on the other. These combined developments imply that economic recession and lower growth rates tend to accentuate the challenge of population shrinkage at the regional level.

Figure 2. Population change within a 50 km radius 1961-2011



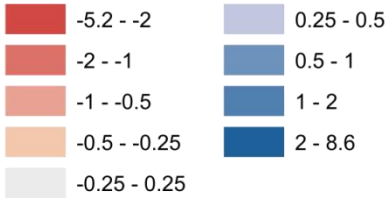
Source: UMS RIATE, based on data from Spatial Foresight.

Figure 3. Population change between 2004 and 2009 by NUTS 3 regions



Administrative boundaries: Spatial Foresight and University of Geneva based on material from Eurostat GISCO, the GADM database and the EEA.
 Data: Eurostat (demo_r_pjangrp3).
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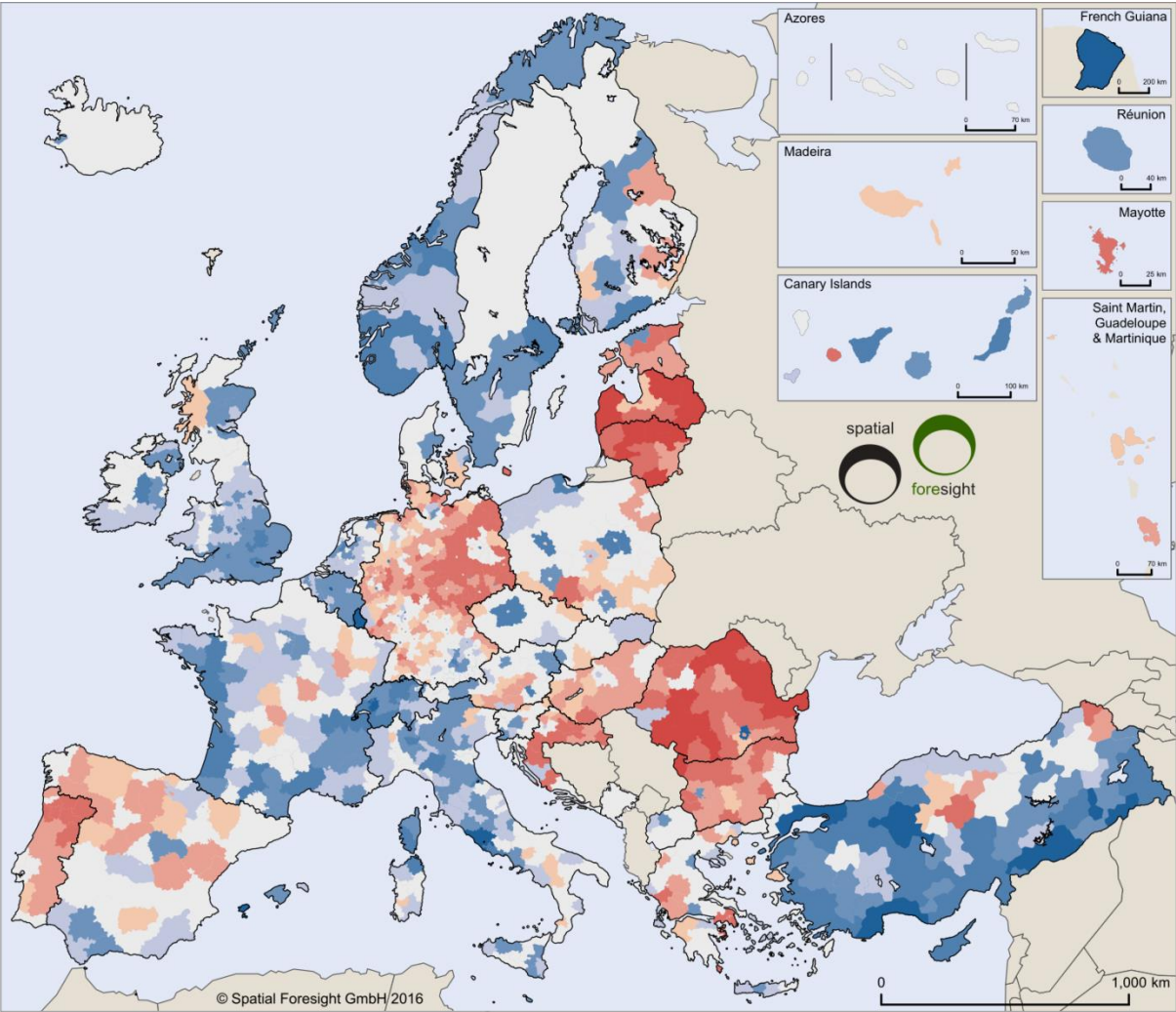
Annual average population change from 2004 to 2009 in %



Data for DK, DEE01, DEE05, DEE06, DEE07, DEE08, DEE09, DEE0A, DEE0B, DEE0C and DEE0E from 2007 - 2009.
 Data for NO from 2005 - 2009.
 Data for TR from 2008 - 2009.
 Missing data for parts of DED2, DED4, DED5 and DEE0 was substituted with data from the next higher NUTS level.

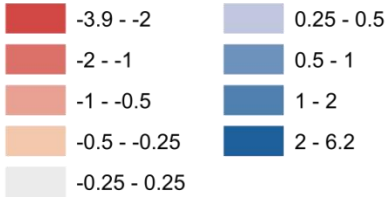
Source: Own elaboration based on Eurostat.

Figure 4. Population change between 2009 and 2013 by NUTS 3 regions



Administrative boundaries: Spatial Foresight and University of Geneva based on material from Eurostat GISCO, the GADM database and the EEA.
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Annual average population change from 2009 to 2014 in %



Data for DEA2D, DED2C, DED2D, DED2E, DED2F, DED42, DED43, DED44, DED52 and DED53 from 2007 - 2009.
 Missing data for parts of DED2, DED4, DED5 and DEE0 was substituted with data from the next higher NUTS level.

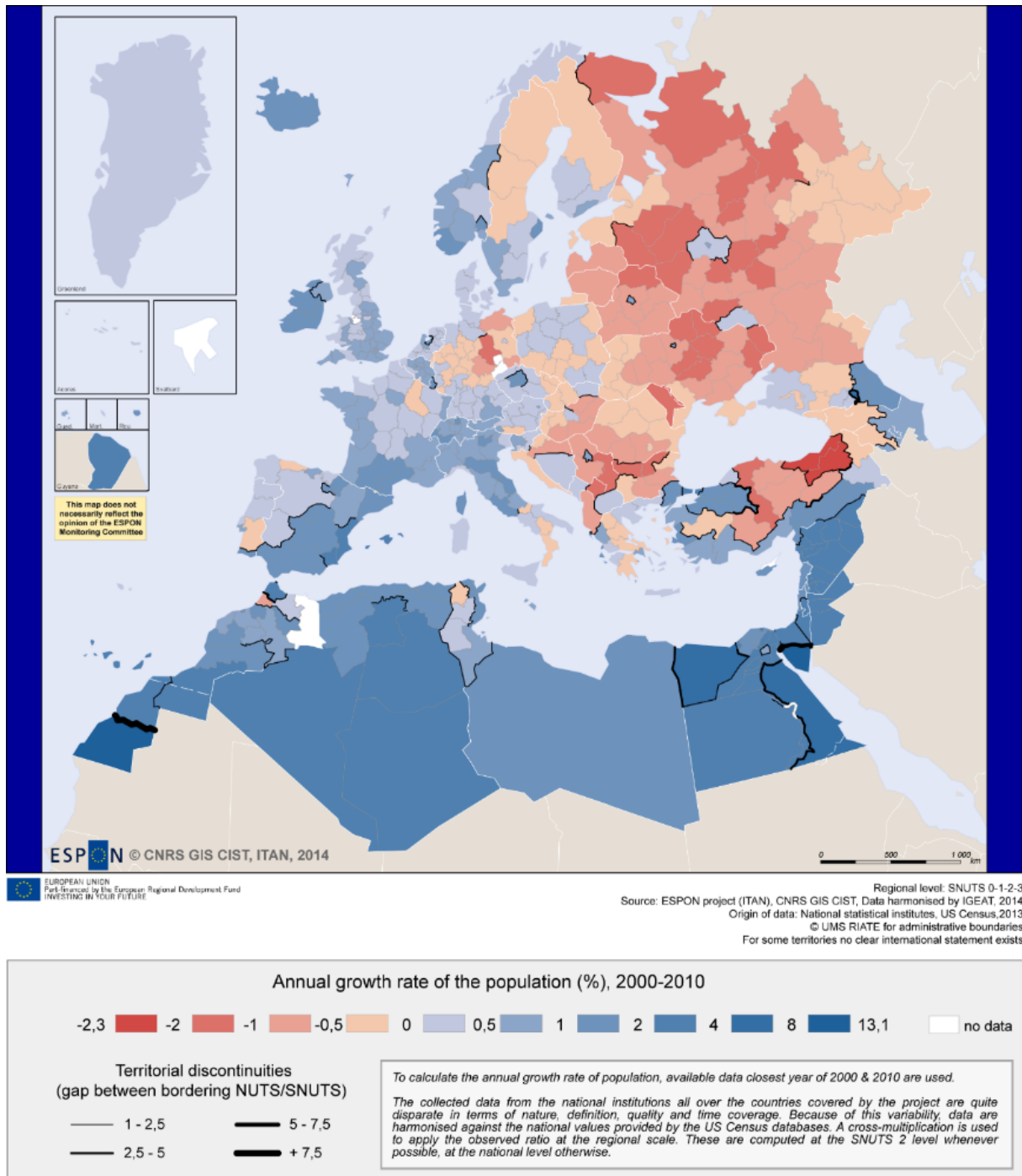
Source: Spatial Foresight.

Observing European demographic developments in a wider context, by integrating countries and regions of its eastern and southern neighbourhood (see Figure 5) suggests that contrasts between eastern and western parts of Europe, as well as between north and south, are components of wider gradients extending into its neighbourhood. Demographic decline is even more accentuated in Russia, Belarus, Ukraine and Moldova than it is in Central and Eastern Europe. Population growth rates in western Turkey, on the other hand, are similar to those observed in the Middle East and in northern Africa. However, the ESPON ITAN report notes that Turkey should be considered as a country with an advanced demographic transition and major regional contrast. Similar processes are starting in Tunisia and Morocco. These trends in the European neighbourhood provide relevant inputs on foreseeable migratory pressures.

It should be seen in conjunction with the maps of discontinuities of income, represented in Figure 6 using GDP/capita as a proxy. This map shows differences in GDP growth between 2000 and 2012, and suggests extensive catching-up processes during this period in Central and Eastern Europe as well as in its eastern and southern neighbourhood. Black border lines indicate an accentuation of border discontinuities, which would then generate an increased incentive of population to work and/or live on the other side of the border. It is important to note in this respect that the apparent convergence between neighbouring countries in terms of GDP/capita can lead to an accentuation of border disparities in absolute terms. A good example of this is the border between Germany and Poland: while Poland had higher growth than Germany between 2000 and 2012, this higher growth generated less additional GDP/capita. The reason for this was that the starting point was much lower. Therefore, the absolute difference between average GDP/capita at the end of the period was higher than at the beginning. One can presume that these absolute differences provide the best measure of the incentive to commute or migrate across the border.

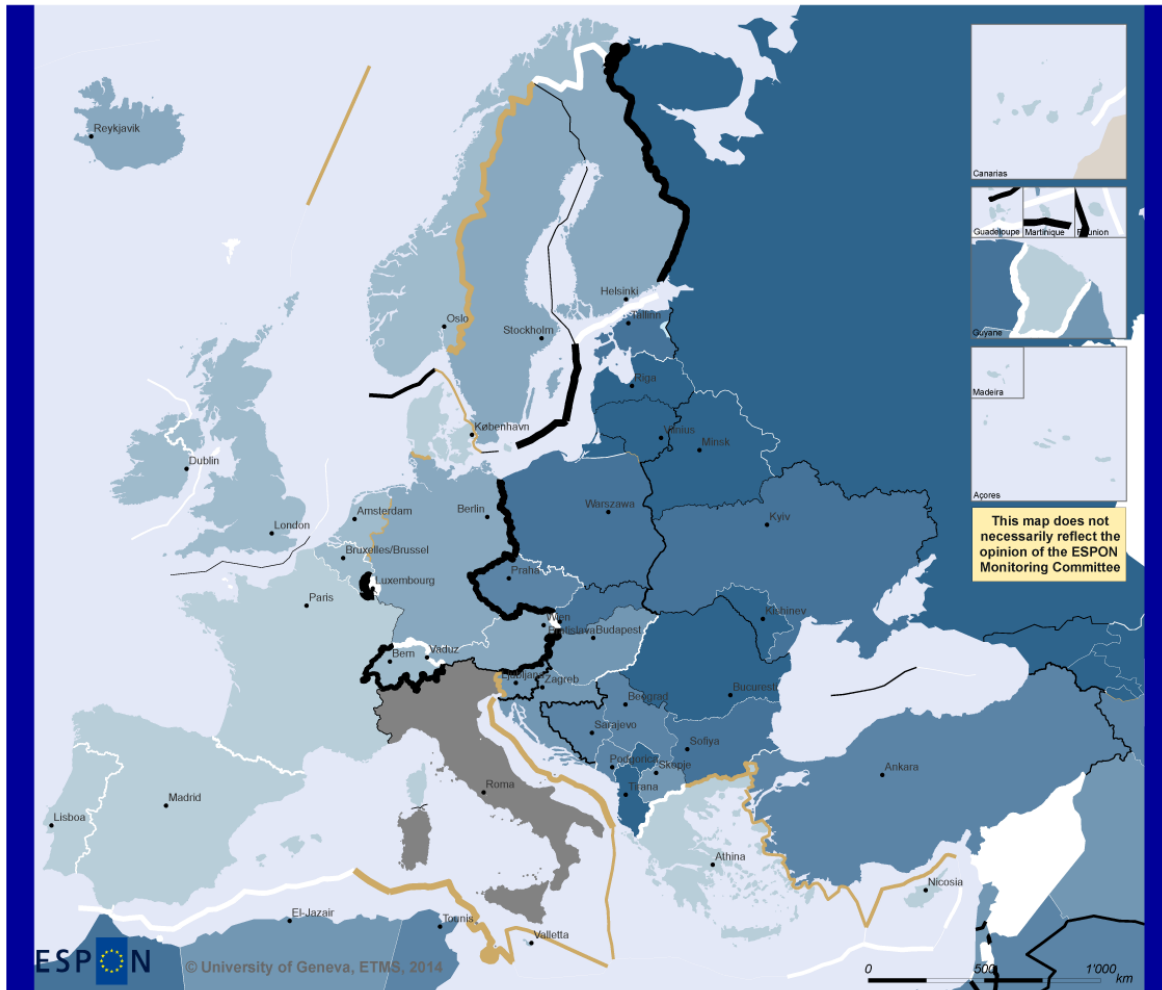
Figure 6 also illustrates the strength of discontinuities along borders with countries such as Switzerland, Norway and Luxembourg. These differences all have significant impacts on demographic trends and commuting patterns in the concerned areas.

Figure 5. Annual growth rate between 2000 and 2010 in Europe and its neighbourhood



Source: ESPON, 2014b.

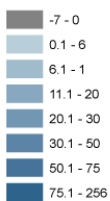
Figure 6. Evolution of GDP discontinuities along borders in Europe and its neighbourhood between 2000 and 2012



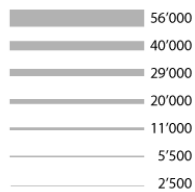
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INVESTING IN YOUR FUTURE

Regional level: NUTS 0
Source: World Bank, 2014
© University of Geneva for administrative boundaries,
based on material from Eurostat GISCO, the GADM database and the EEA

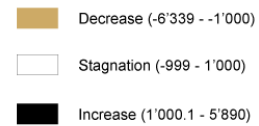
GDP per capita
In constant US\$ 2005
Evolution in percents from 2000 to 2012



Extent of border discontinuities in 2000
In constant US\$ 2005



Evolution of border differentials
Period: 2000 to 2012
GDP per capita in constant US\$ 2005



Source: ESPON, ETMS.

1.1.2 Different trends in metropolitan, urban and rural areas

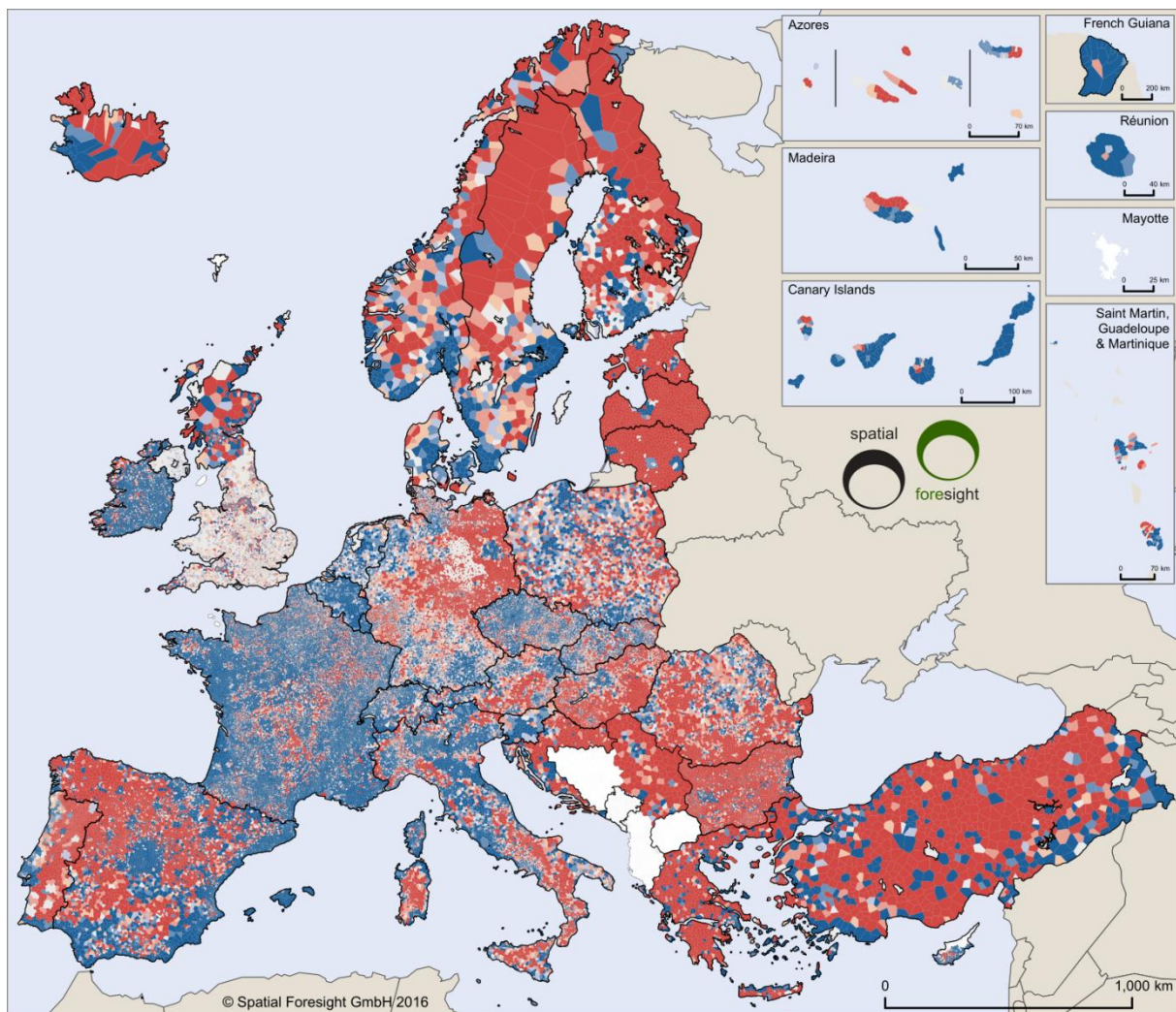
Differentiating between demographic trends in metropolitan, urban and rural areas illustrates the diversity of challenges and opportunities LRAs are confronted with. Metropolitan regions and urban regions play a specific role in European demographic evolutions. In many parts of Europe, polarising trends lead to enhanced population concentrations in urban areas. However, a significant number of cities also experience shrinkage as a result of economic decline.

Demographic change at the level of European municipalities during the last decade (2001-2011) is mapped in Figure 7. Spain and Italy are respectively characterised by east-west and north-south contrasts that superimpose themselves to urban and metropolitan concentration. In eastern Germany, the attractiveness of the Berlin regions stands out in a general context of rapid demographic decline. The Czech Republic and Slovakia have a relatively balanced distribution of growing municipalities, while they are concentrated around major cities in Hungary, Bulgaria and Romania, as well as in the Baltic States. In countries such as France and Ireland the vast majority of municipalities experience demographic growth.

Overall, beyond these national disparities, the observation of local population development shows the specific situation of rural municipalities beyond commuting distance of significant towns or cities. Across western Europe as well as in large parts of Poland, the Czech Republic and Slovakia, areas within commuting distance of most cities are growing. In other parts of Europe, decline is limited. However, remote rural areas experience challenging demographic trends across the continent.

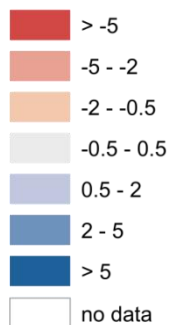
In addition, in Poland as well as in a number of capital cities across Central and Eastern Europe, city centres experience population decline, while their surroundings are growing. In western Europe, city centres of larger cities are growing together with their surroundings; however, some medium-sized towns within the area of influence of larger ones lose in attractiveness.

Figure 7. Population change between 2000 and 2011 by LAU2 units



Administrative boundaries: University of Geneva based on material from Eurostat GISCO, the GADM database and the EEA.
 Data: Eurostat (LAU2_reference_dates_popl).
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Population change between 2001 and 2011 (%)



Source: Spatial Foresight.

Shrinking cities became an openly debated issue and topic for policy discussion from the mid-2000s, even if it is argued that such development had been observed for many years (Wiechmann, 2009). Before that, the topic was considered taboo; at least, planning for demographic decline was not considered an option. They are primarily found in the third or fourth tiers of national urban systems, but have also affected large cities and metropolitan areas in e.g. the United Kingdom. Shrinking is interpreted as the result of economic globalisation, which has led to a concentration of economic activities in selected metropolitan areas. Shrinkage in an urban area is therefore usually associated with economic decline (Müller, 2003, p. 30). Compared to rural shrinkage processes, shrinking tendencies in urban centres are mostly characterised by the combination of multitude different factors (Hoffmann et al., 2015).

European spatial planning systems were established in times of strong population and economic growth from the 60s to the 90s (Müller, 2003, p. 31). Concerned LRAs are thus equipped with little knowledge on how to address shrinkage on the most local level. This accounts especially for planners engaged in the public sector. As Müller (2003, p. 36) mentions, the process to steer shrinkage is perceived as much more difficult than the process to steer demographic growth because of the potential to worsen or to cause new negative externalities by inappropriate actions. First pilot projects on how to face urban decline can be observed at the German example of ‘Stadtumbau Ost’¹ (Urban Reconstruction East).

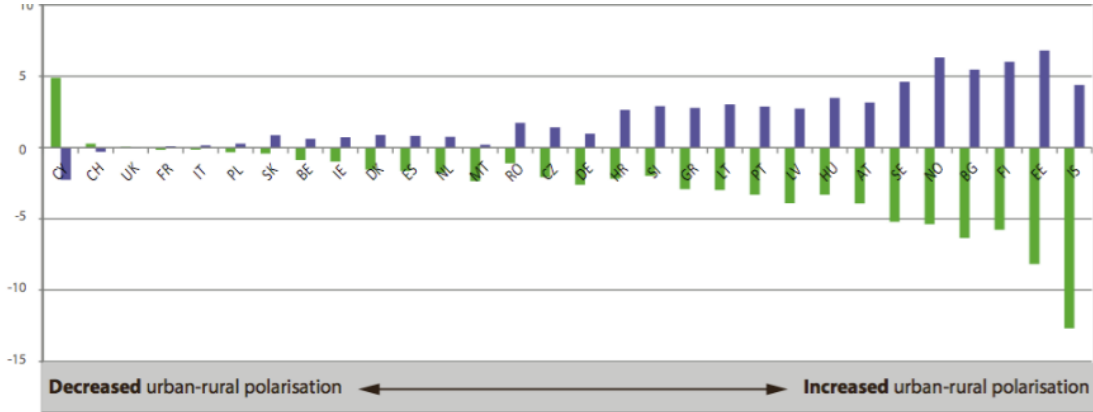
The overall pattern remains one of higher growth in urban areas than in rural ones in more than two thirds of the European countries between 2001 and 2011 (Figure 8). The most intense urban-rural polarisation can be observed in the Nordic countries and in Bulgaria. The higher rates of demographic growth in rural areas of Cyprus are due to the fact that these include the island’s main tourism centres.

As shown in Figure 9, positive net migration also tends to go hand in hand with high GDP. This is particularly the case in southern Europe (e.g. Italy, Spain, Turkey) and to a lesser extent in Germany. This implies that the economically largest regions continue to attract more people. Contrasts between these regions and the rest of Europe get sharper. However, Valencia is an example of a region that attracts many in-migrants in spite of its low GDP compared to Madrid, Catalonia and Andalucía. This illustrates the importance of factors of attractiveness that are not associated with high economic mass, e.g. attractive climatic conditions, cultural life or natural assets.

¹ For further information, please see:

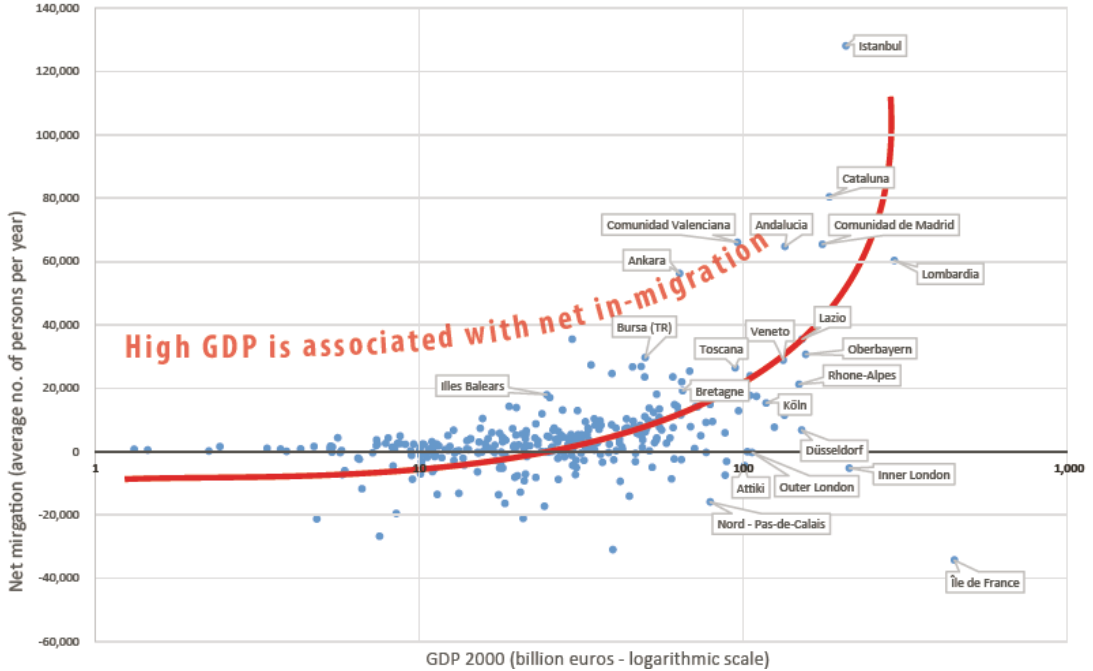
http://www.staedtebauforderung.info/StBauF/DE/Programm/ StadtumbauOst/stadtumbauOst_node.html

Figure 8. Evolution of urban-rural demographic polarisation between 2001 and 2011



Source: Di Biaggio et al., 2014.

Figure 9. Population change (2000-2012) in relation to total GDP (2000) by NUTS 2 regions



Source: Di Biaggio et al., 2014.

1.1.3 Territories with geographic specificities

Areas with geographic specificities such as mountain regions, islands, coastal zones or sparsely populated areas are characterised by specific types of opportunities and challenges, also in demographic terms.

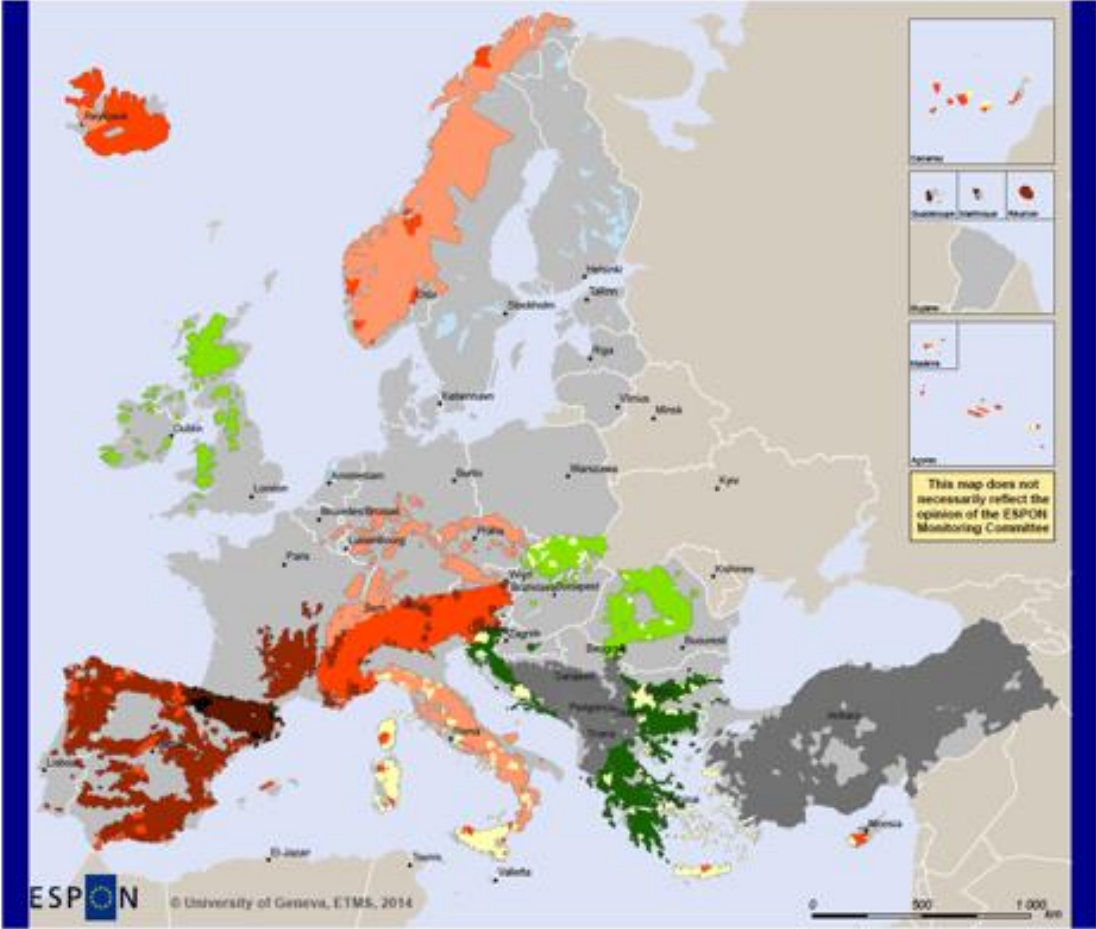
Their challenges are linked to difficulties of providing access to basic services of general interest (e.g. health care, transport, education, etc.) (see Gløersen et al., 2016) and of creating labour markets that are sufficiently large and diversified to be robust in the face of external shocks and industrial cycles. However, they have opportunities linked to e.g. attractive living environments, unique leisure opportunities, climatic specificities, access to nature and specific natural resources.

It is also important to note that geographically specific areas are not necessarily rural. Mountain regions include densely populated valleys, many of which are well-connected to metropolitan regions. European islands are very diverse. For example, the island of Scilly off the coast of the Cornish peninsula with its 2,200 inhabitants has little in common with Sicily and its 5 million inhabitants. Sparsely populated regions of northern Sweden and Finland include dynamic university cities.

Overall, this leads to contrasted demographic trends. Mountain areas cannot generally be characterised as losing population. As Figure 10 illustrates, demographic developments between 2001 and 2011 in urban and rural European transnational mountain massifs is not uniform. While the Balkans/Southeast Europe, the Carpathians and the British Isles mountains experience a continuous population decrease, the Nordic, the Iberian, the Alps and the French Massif Central signify a steadily growing population. There is rural-urban polarisation in most mountain areas.

Such polarising trends are also observed across all sparsely populated areas. The key issue in these areas is the threshold population levels above which stabilisation of population levels appears possible. These threshold levels vary from country to country, reflecting the effect of economic redistribution mechanisms and the performance of economic sectors, which is present in these regions.

Figure 10. Demographic trends in urban and rural parts of transnational mountain massifs



Population change 2001-2011 (in %)



Source: ESPON GEOSPECS project.

1.2 National and regional patterns of natural change

Natural population growth has a very small impact on the increase of population of Europe as a whole (BBSR et al., 2014). However, at the level of NUTS regions, difference between natural population growth has a significant impact. Figure 11 reveals some distinct national patterns: Hungary, Bulgaria, Romania and the Baltic countries have negative natural growth, while countries such as Ireland, Cyprus, France, the United Kingdom, Sweden, Luxembourg, Belgium and Netherlands. There are also some distinct regional specificities, as illustrated by demographic decline in western parts of the Iberian Peninsula, northern Italy and eastern Poland, as well as in Limousin and Auvergne in France.

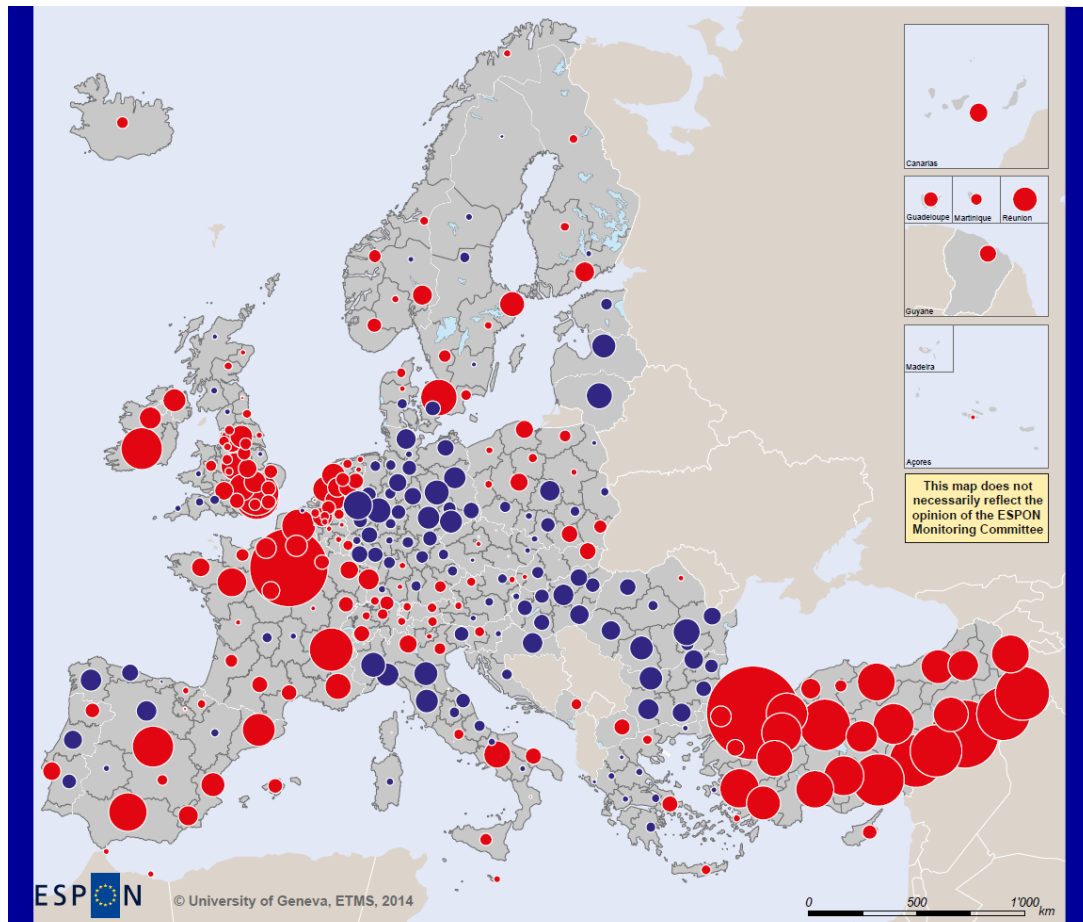
In addition to fertility rates, low regional natural growth figures are also an effect of where people between 20 and 40 years choose to settle. The capital regions of France, Spain and Scandinavian countries typically have high positive natural growth. In the case of Paris, this is accompanied by negative net migration (see Figure 17 p. 39), as families with children tend to move out of the region.

The extent of national differences with regard to fertility rates is illustrated in Figure 11². Within the EU, rates are particularly high in France and in Ireland. At the other end of the scale, rates are low in countries such as Spain, Poland, Greece, Italy and Slovakia. These differences are linked to cultural and religious issues as well as perceived levels of economic uncertainty, and different types of welfare state provisions, e.g. income compensations for parental leave and cost of early age childcare.

During 2014, 12 Member States reported a reduction in their level of population of which five (Greece, Latvia, Lithuania, Poland and Portugal) due to a combination of negative natural balance and negative migratory balance. At the same time, 16 Member States experienced demographic growth of which 12 through the combination of a positive natural balance and a positive migratory balance (Eurostat, 2015a).

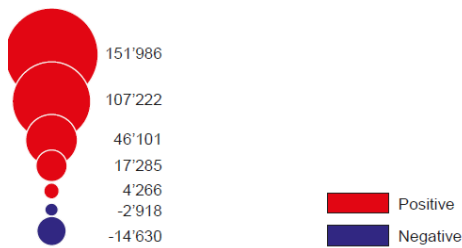
² Total fertility rate represents the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates.

Figure 11. Natural growth by NUTS2 regions



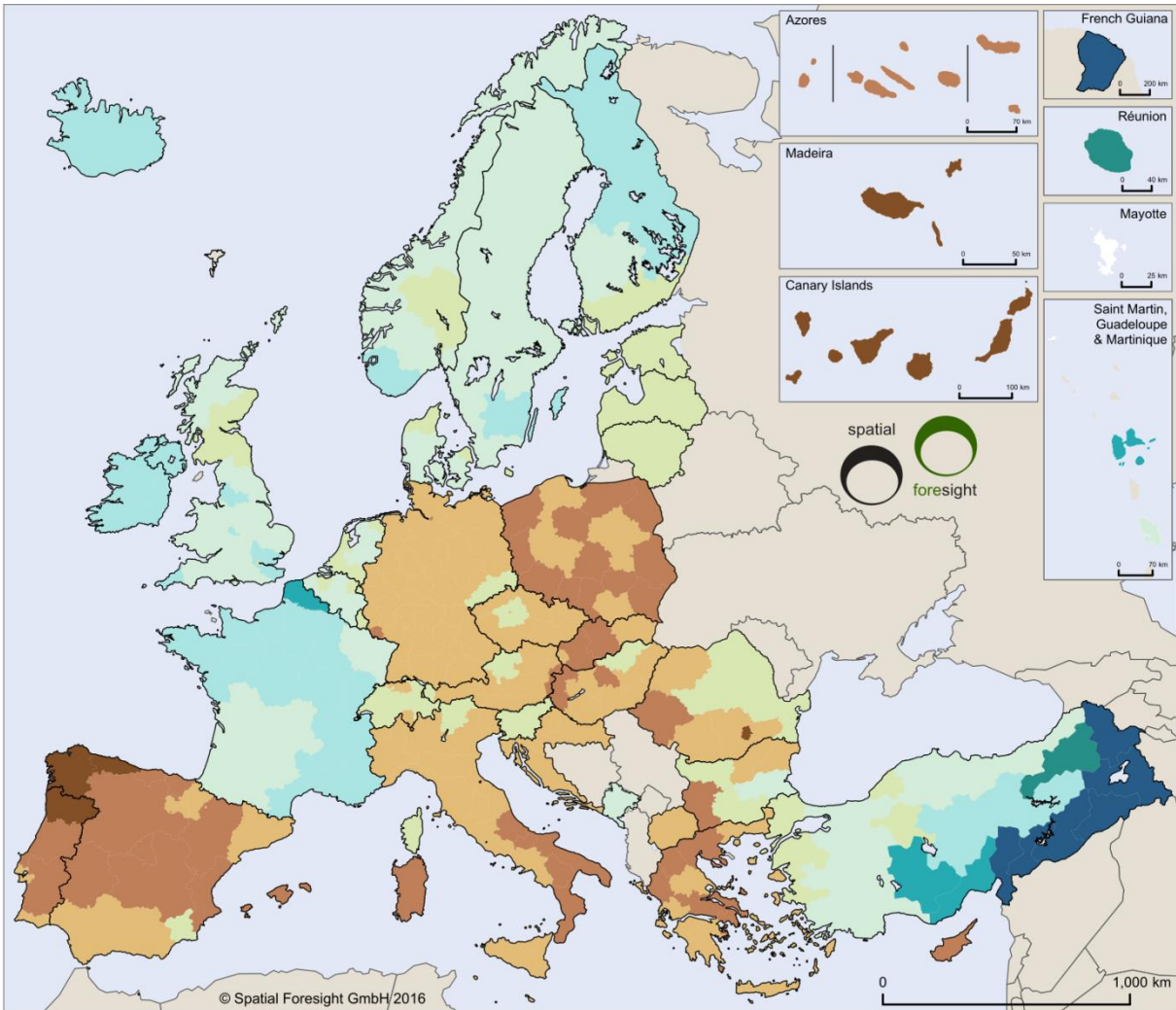
Regional level: NUTS 2
 Source: ETMS, 2014
 © University of Geneva for administrative boundaries,
 based on material from Eurostat GISCO, the GADM database and the EEA

Natural growth
 Unit: persons












Source: Di Biaggio et al., 2014.

Figure 12. Fertility rates by NUTS 2 regions (2013)



Administrative boundaries: Spatial Foresight and University of Geneva based on material from Eurostat GISCO, the GADM database and the EEA.
 Data: Eurostat (migr_asyappctzm).
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Total fertility rate, 2013

 > 1.1	 1.9 - 2.1
 1.1 - 1.3	 2.1 - 2.3
 1.3 - 1.5	 2.3 - 2.5
 1.5 - 1.7	 > 2.5
 1.7 - 1.9	

Data for ME, MK and DE from 2012
 EU28 average: 1.55

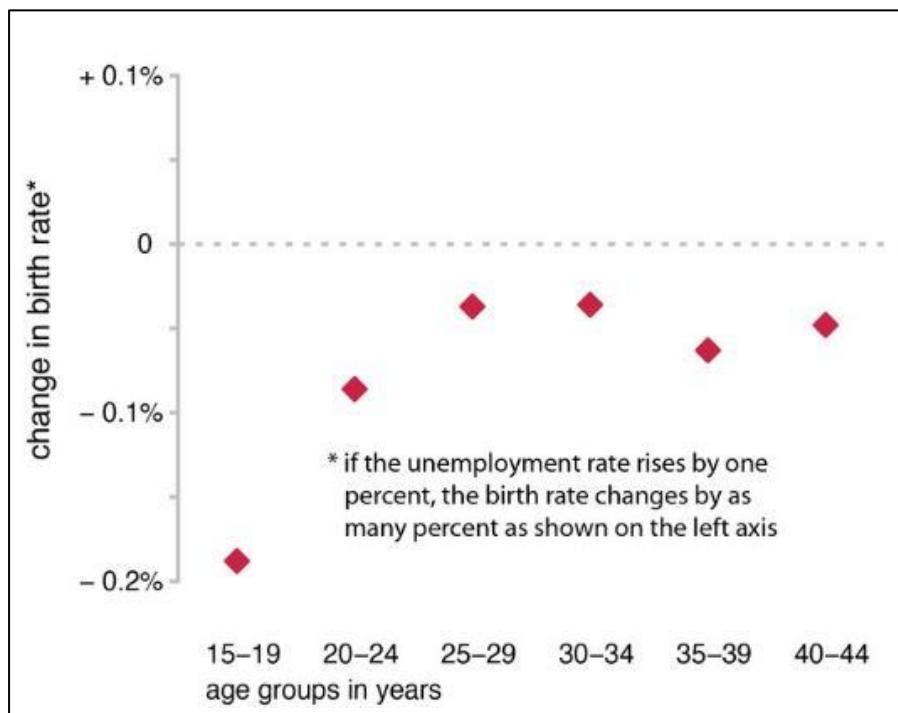
The total fertility rate represents the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates.

Source: Spatial Foresight.

As stated by Goldstein et al. (2013), the economic crisis had a significant effect on the birth rates of European women. Births of women below the age of 25 have dropped during the recent economic downturn, as a result of rising unemployment rates. The study proves that a high share of unemployment has an impact on the fertility of a population, especially for the first-born children. According to the study, the crisis has struck the European natural growth rates just as they were about to rise again after a long period of declining fertility rates.

In a number of southern European countries where the crisis has introduced large shares of unemployed young people, many regions have turned from a positive to a negative natural change. Figure 13 illustrates the average expected change in birth rate by each 1% rise of unemployment in Europe. The Figure shows that especially the share of population below the age of 25 is the most influenced.

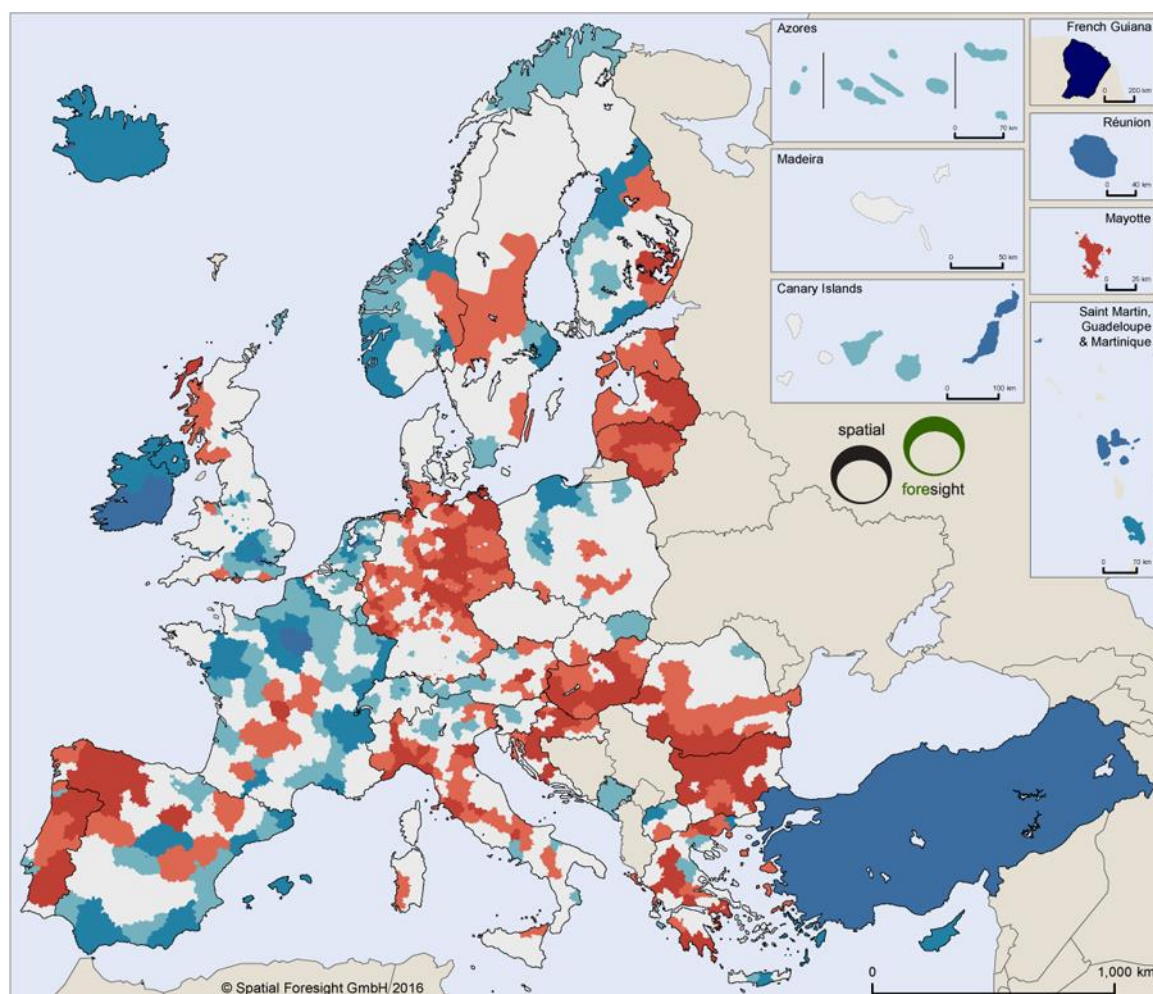
Figure 13. Effect of rise of unemployment on birth rates



Source: Max-Planck Gesellschaft, 2013.

Territorial impacts of these effects are obvious when comparing Figure 14 and Figure 15. Red areas where natural change contributes to limit population growth have been extended, for example in Greece, north-western Spain, Italy and Romania. The same is true in Germany, in spite of the more moderate impact of the economic crisis. In parallel, positive contribution of natural change (in blue) are more limited, e.g. in northern Italy, England and Spanish regions along the Mediterranean coast.

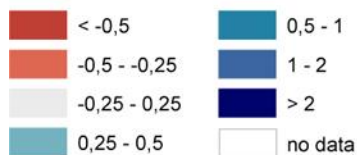
Figure 14. Natural population change by NUTS 3 regions (2005-2009)



Administrative boundaries: Spatial Foresight and University of Geneva based on material from Eurostat GISCO, the GADM database and the EEA.
 Data: Eurostat (demo_r_gind3 and demo_r_pjanagr3).
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Natural population growth by NUTS 3 regions (2005-2009)

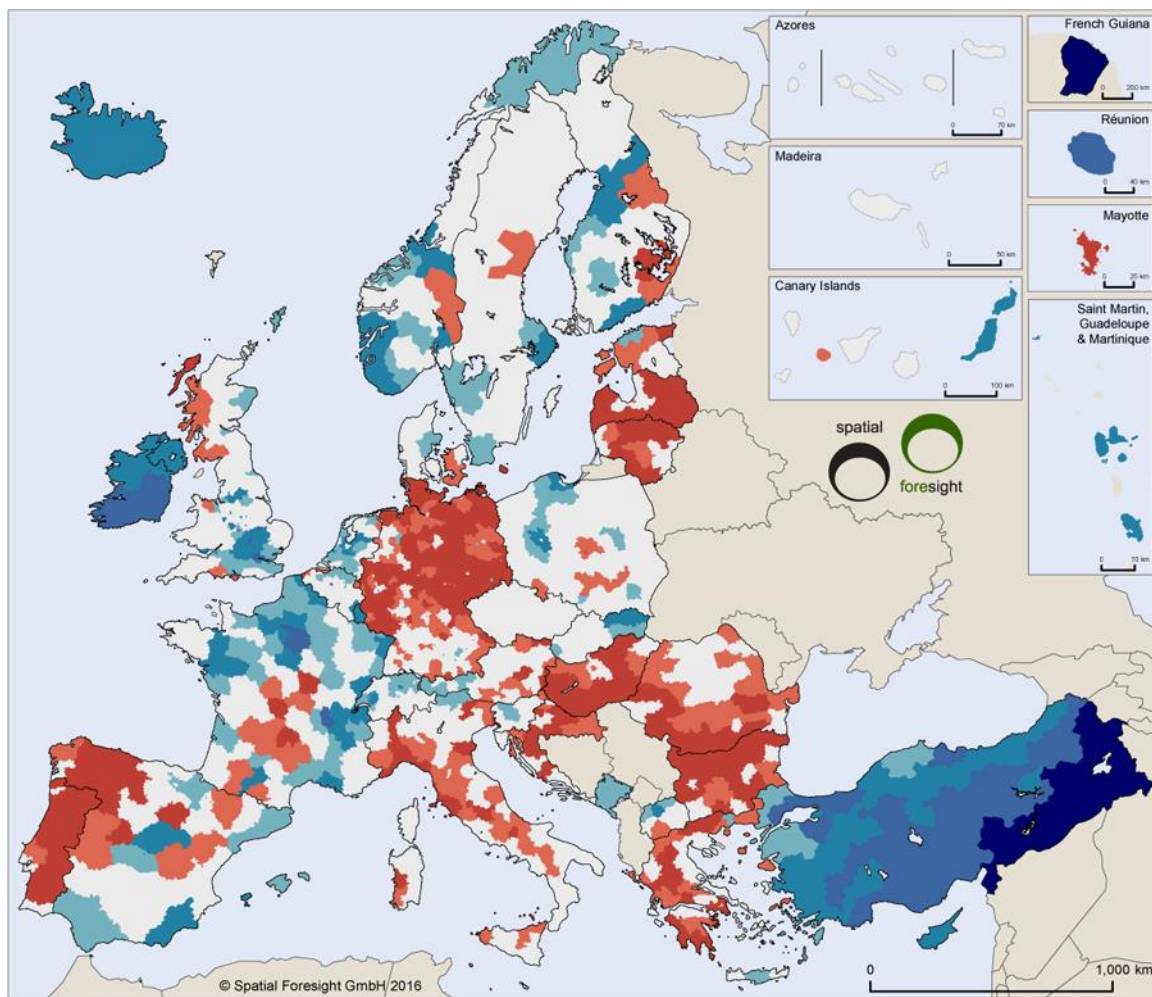
Average annual rate, in %



Missing data from DK and TR and for parts of DED2, DED4, DED5 and DEE0 were substituted with data from the next higher NUTS level.

Source: Spatial Foresight.

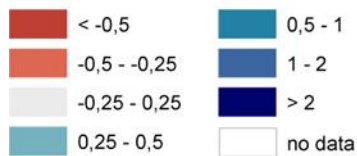
Figure 15. Natural population change by NUTS 3 regions (2009-2013)



Administrative boundaries: Spatial Foresight and University of Geneva based on material from Eurostat GISCO, the GADM database and the EEA.
 Data: Eurostat (demo_r_gind3 and demo_r_pjanagr3).
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Natural population growth by NUTS 3 regions (2009-2013)

Average annual rate, in %



Data for DE from 2009 - 2012.
 Missing data for parts of DED2, DED4, DED5 and DEE0 was substituted with data from the next higher NUTS level.

Source: Spatial Foresight.

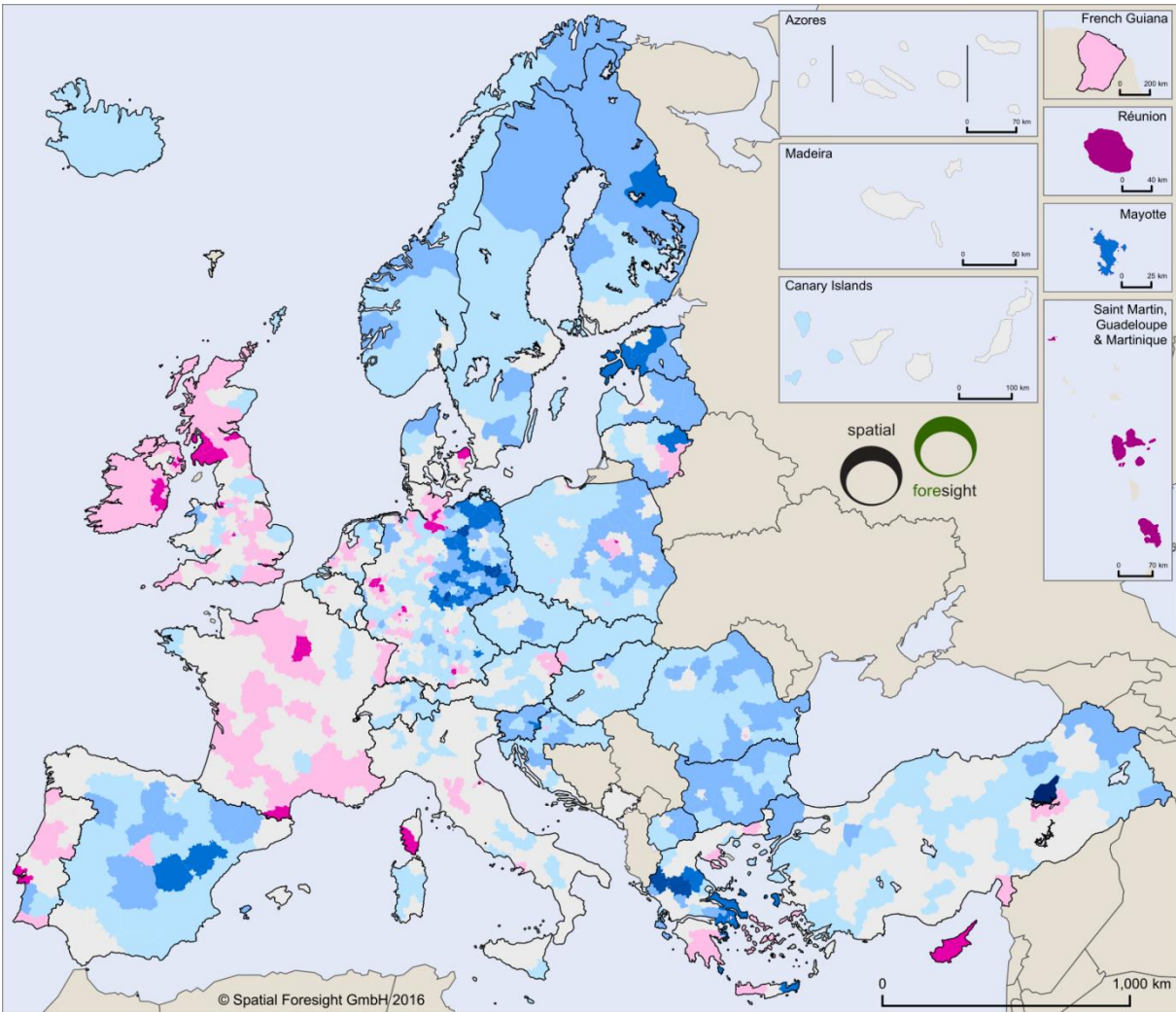
1.3 Gender imbalances

The ESPON SEMIGRA project observes that young and highly skilled women are one of the most mobile population groups in Europe. This is one of the explanatory factors for differences in the ratio of men to women among people aged between 25 and 39 years (Figure 16), which reflects where young professionals choose to settle after the end of their studies and as they establish families. While there is a surplus of female population in a number of Irish, British, French and Portuguese regions, European regions that experience demographic decline also have an overrepresentation of men.

These differences are partly explained by the fact that women are more prone to leave shrinking regions with limited employment opportunities. They pursue higher education to a greater extent than men, and a significant proportion will tend to stay in the region where they have been studying after the end of their studies. Inversely, deficits of women, are increasingly identified as a sign of regional stagnation (ESPON SEMIGRA, 2012). The presence of women is therefore both a factor and result of the development of more balanced and knowledge-intensive development.

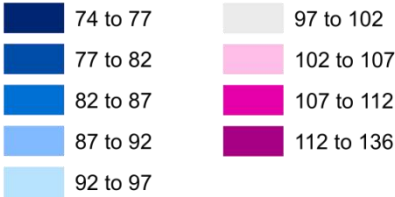
It should also be noted that daily mobility patterns of men and women are different. It has recurrently been observed that women have a more limited commuting range (Crane, 2007), often as a result of the fact that they assume a greater share of family responsibilities. This implies that women are more sensitive than men to sub-regional and local variations in employment opportunities, and can justify targeted efforts to promote entrepreneurship among women.

Figure 16. Women to men ratio in the age group 25-39 years by NUTS 3 regions (2014)



Administrative boundaries: Spatial Foresight and University of Geneva based on material from Eurostat GISCO, the GADM database and the EEA.
 Data: Eurostat (demo_r_pjangrp3).
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Women per 100 men in the age group 25 to 39, 2014



Source: Spatial Foresight.

1.4 Migratory patterns

As highlighted by the ESPON DEMIFER project, migration is a multifaceted phenomenon, which can be approached from many different perspectives. Depending on the approach, the conclusions on the impact of migration on economic growth, unemployment and labour force participation will vary (ESPON, 2010a, p. 5).

Migratory movements occur at all scales from the local (e.g. between a town and its neighbouring rural areas) to the inter-continental (e.g. extra-European immigration). Net migration at any given scale ignores movements at inferior territorial levels and synthesises all movements at superior levels. For example, NUTS 2 migration figures do not reflect any of the movements between the urban and rural areas it comprises, but synthesise migratory movements with other regions of the same country, and with other parts of the world. The interpretation of migratory data is therefore complex. One needs to combine patterns at different scales to get a satisfactory overall picture.

Furthermore, different age groups are influenced by different push-and pull factors. This leads to the fact that demographic characteristics are pronounced differently across the European territory depending on the attractiveness for the age groups (ESPON, 2012). Selective migration generates local, regional and national differences in human capital having consequences on socio-economic development potentials in Europe. The objective at the European and national levels is to promote labour migration that would reduce the mismatch on the labour market. Mobility of young people and labour market integration are by way of consequence identified as levers of growth by the Europe 2020 strategy, e.g. with its ‘Youth on the move’ initiative (Eurostat, 2015b).

It should be noted that access to data on migratory movements is limited. In many European countries, migration is only calculated as the difference between natural change and total population change (European Commission, 2014b). It is therefore often impossible to assess the levels of out- and in-migration leading to a given level of net migration. Flow matrixes, showing total movements between territorial units are available in some countries but not for Europe as a whole. Data on migration at the level of municipalities (LAU2) are also not available. Intra-regional migratory patterns can therefore only be observed within specific countries, or by considering overall population change (see Figure 7 p. 24).

1.4.1 Regional net migration

Figure 17 shows that regions with net out-migration are concentrated in specific parts of Europe:

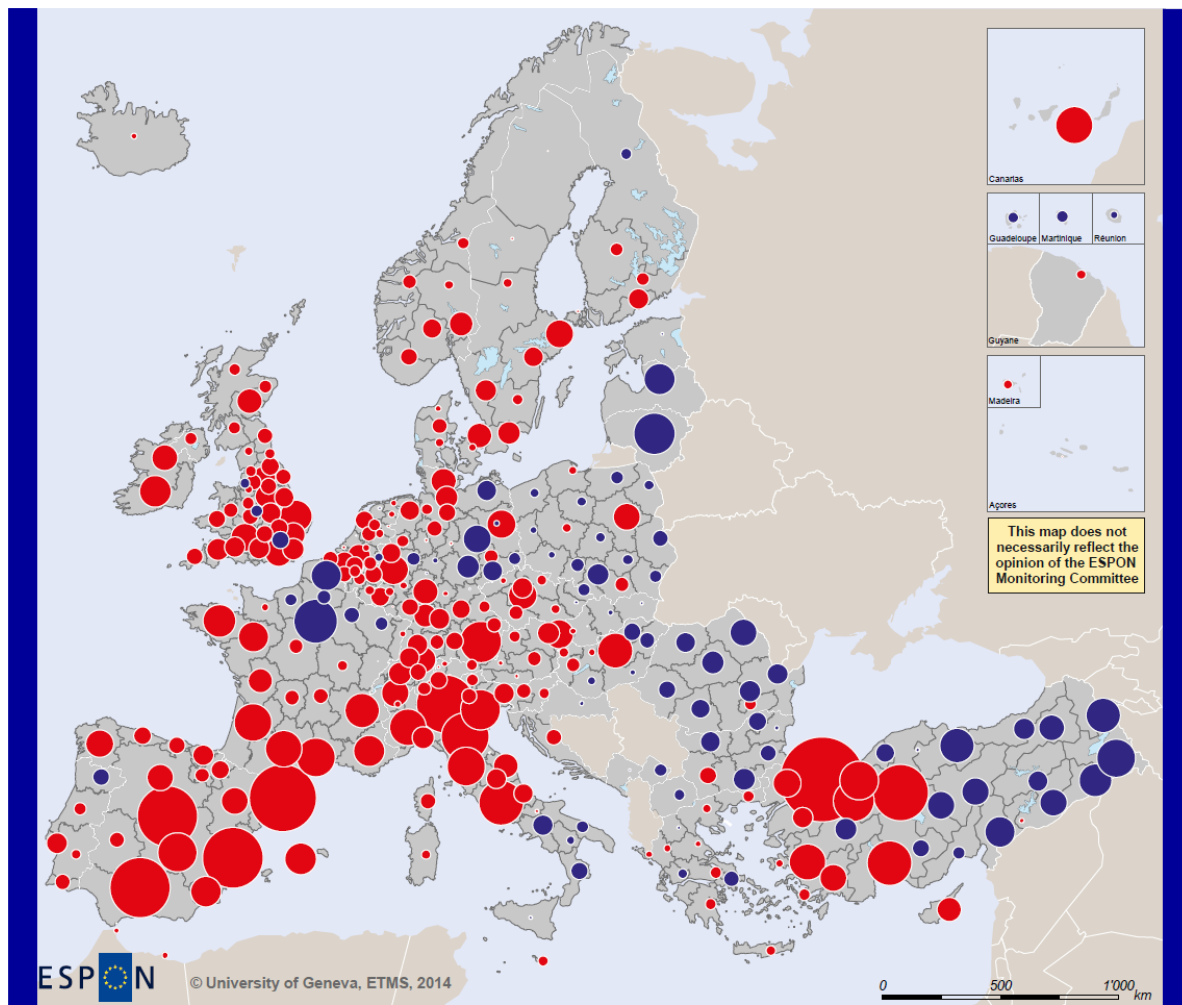
- along an eastern axis stretching from the Baltic States and eastern German Länder through Poland, eastern Hungary, Romania and Bulgaria;
- in southern most Italy;
- in north-eastern France.

The Paris region (Île-de-France) is, as explained above, a net out-migration region in spite of a significant inflow of international migrants, students and young professionals. This is due to its limited attractiveness for families with children, who tend to migrate to other French regions.

If one compared the period before and after the economic crisis (see Figure 18 and Figure 19), one observes radical changes in different parts of Europe. In Spain and Ireland, a strong positive impact of immigration is replaced by a neutral or negative one. Similarly, net in-migration has been replaced by net out-migration in a number of Greek regions. Net out-migration in areas such as Bulgaria, Croatia and eastern German Länder has been distinctly reduced. However, the positive net migration has remained stable in northern Italy, Belgium, and the most attractive western and southern regions of France. It is also notable that Cyprus has maintained a stable net in-migration in spite of encountered economic difficulties. Poland's relatively good performance in years following the crisis may have contributed to maintain movements of population in direction of the main metropolitan regions relatively stable.

Polarising trends have by contrast been limited in some countries as a result of the crisis. In Finland, southern metropolitan regions attract fewer in-migrants, while net out-migration in Lapland and in Eastern regions has been limited. Net in-migration in the Latvia capital region of Riga has been replaced by net out-migration. In Hungary, net out-migration outside of the capital region has been limited in the years following the crisis. Similar phenomena of increased mobility in periods of strong economic development, as compared periods of stagnation or decline, have been observed also in previous decades. Possible explanations is that fewer young people get an employment where they study just after graduation, and that they will therefore to a greater extent migrate back to their region of origin. Fewer people will also migrate as a result of job opportunities in other regions than their own. This suggests a stronger presence of young, educated people in less dynamic regions, which is a potential lever of development to be capitalised on.

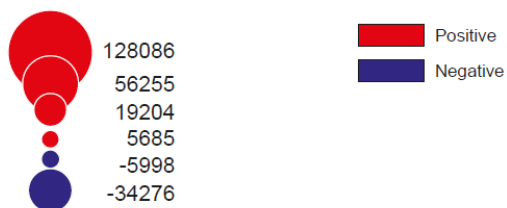
Figure 17. Migratory balance by NUTS 2 regions



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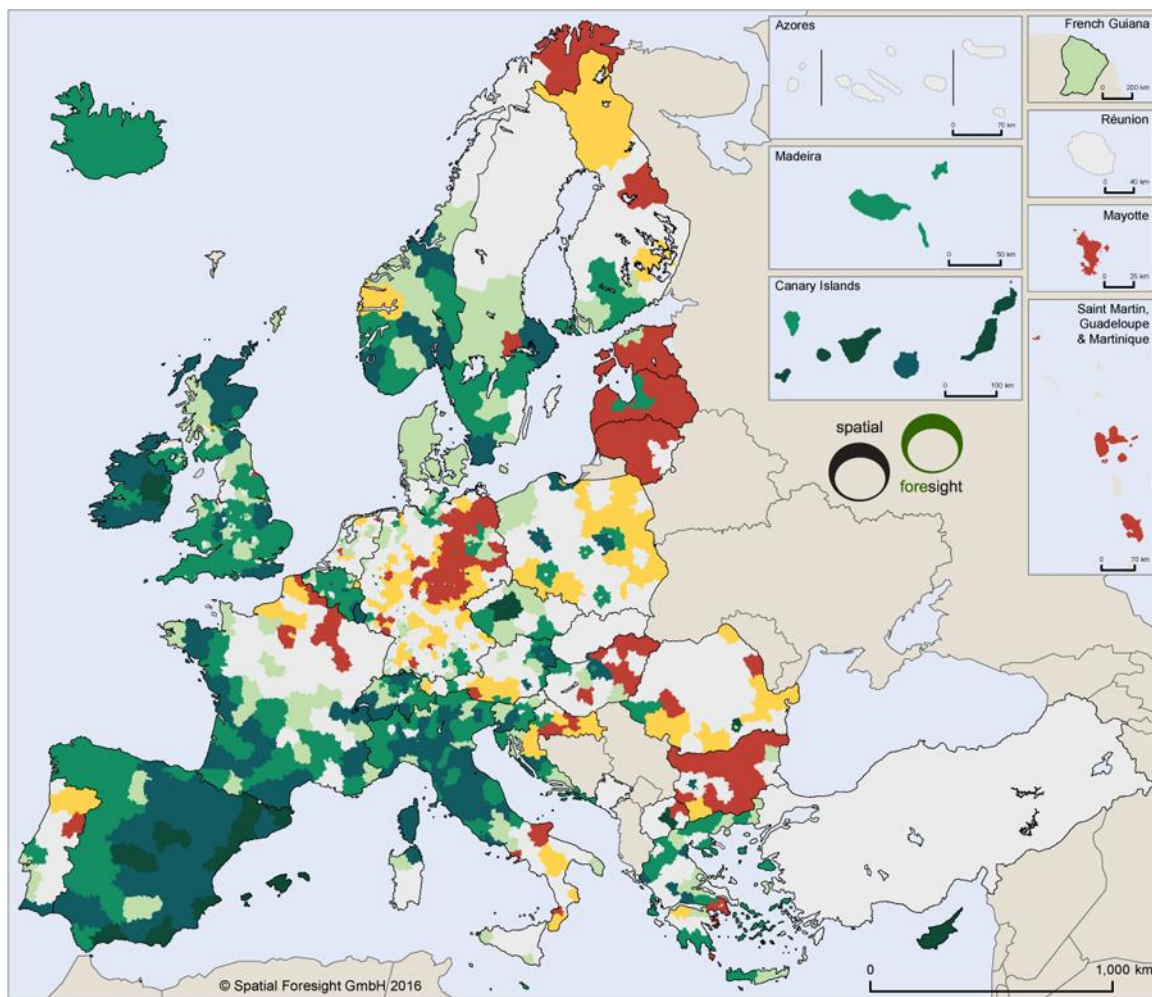
Regional level: NUTS 2
Source: ETMS, 2014
© University of Geneva for administrative boundaries,
based on material from Eurostat GISCO, the GADM database and the EEA

Migration balance
Unit: persons



Source: Di Biaggio et al., 2014.

Figure 18. Migratory population growth by NUTS 3 regions (2005-2009)



Administrative boundaries: Spatial Foresight and University of Geneva based on material from Eurostat GISCO, the GADM database and the EEA.
 Data: Eurostat (demo_r_gind3 and demo_r_pjanagr3).
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Migratory population growth by NUTS 3 regions (2005-2009)

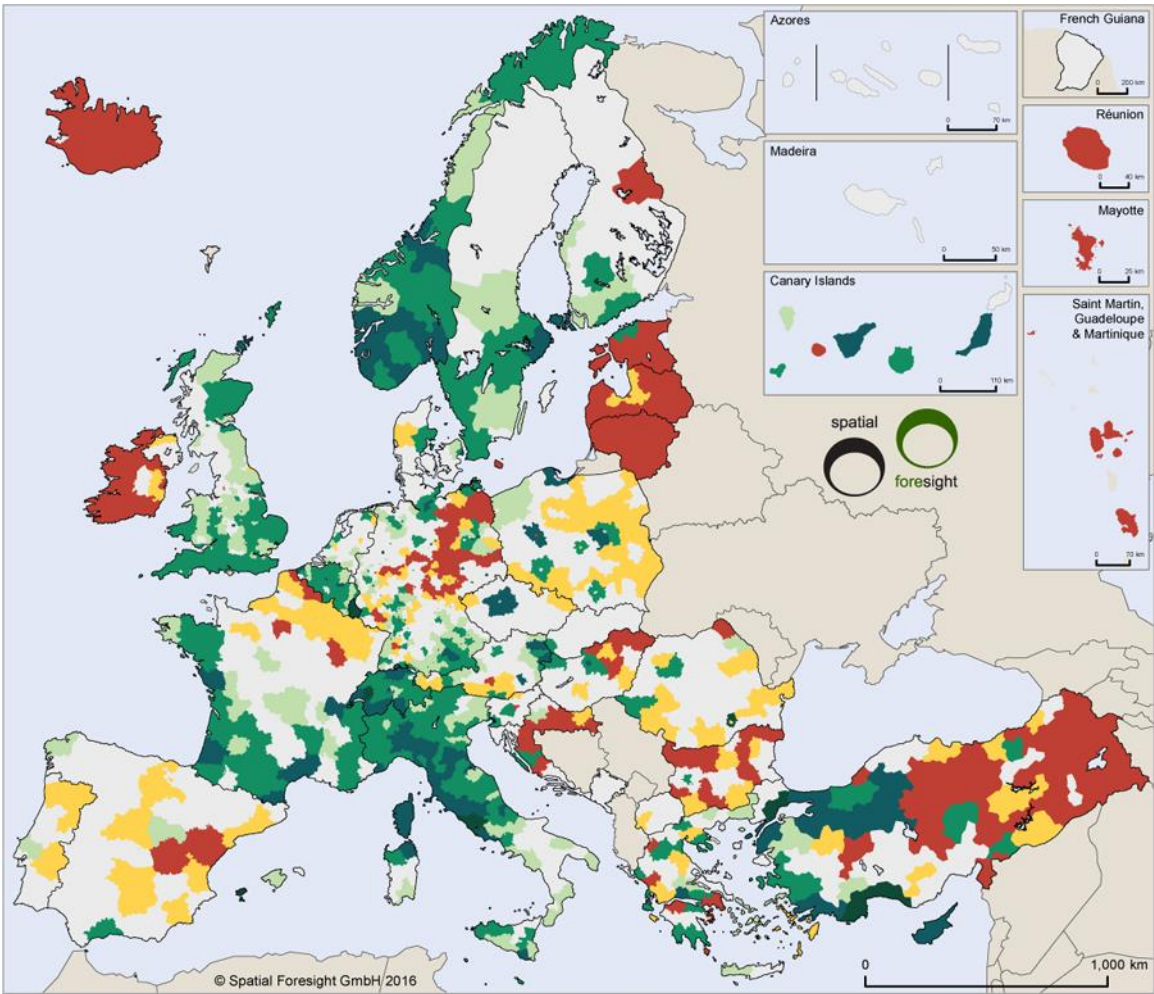
Average annual rate, in %



Missing data from DK and TR and for parts of DED2, DED4, DED5 and DEE0 were substituted with data from the next higher NUTS level.

Source: Spatial Foresight.

Figure 19. Migratory population growth by NUTS 3 regions (2009-2013)



Administrative boundaries: Spatial Foresight and University of Geneva based on material from Eurostat GISCO, the GADM database and the EEA.
 Data: Eurostat (demo_r_gind3 and demo_r_pjanagr3).
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Migratory population growth by NUTS 3 regions (2009-2013)

Average annual rate, in %



Missing data for parts of DED2, DED4, DED5 and DEE0 was substituted with data from the next higher NUTS level.

Source: Spatial Foresight.

1.4.2 Migration flows between European countries

In 2011, over 18.8 million inhabitants in the EU were born in another Member State. That corresponds to 3.7% of the total population (Eurostat, 2015d). An additional 7.4 million were born in other European countries outside of the EU. In terms of potential migratory flows, the 2013 Eurobarometer has highlighted the willingness of European citizens to move to another EU country within the next ten years. One quarter (25%) of the interviewed population indicated that they would consider working in another EU Member State during the next ten years. Thus further lowering administrative barriers and underlining potential assets of intra-European movements may introduce new flows of labour movements (European Commission, 2014c).

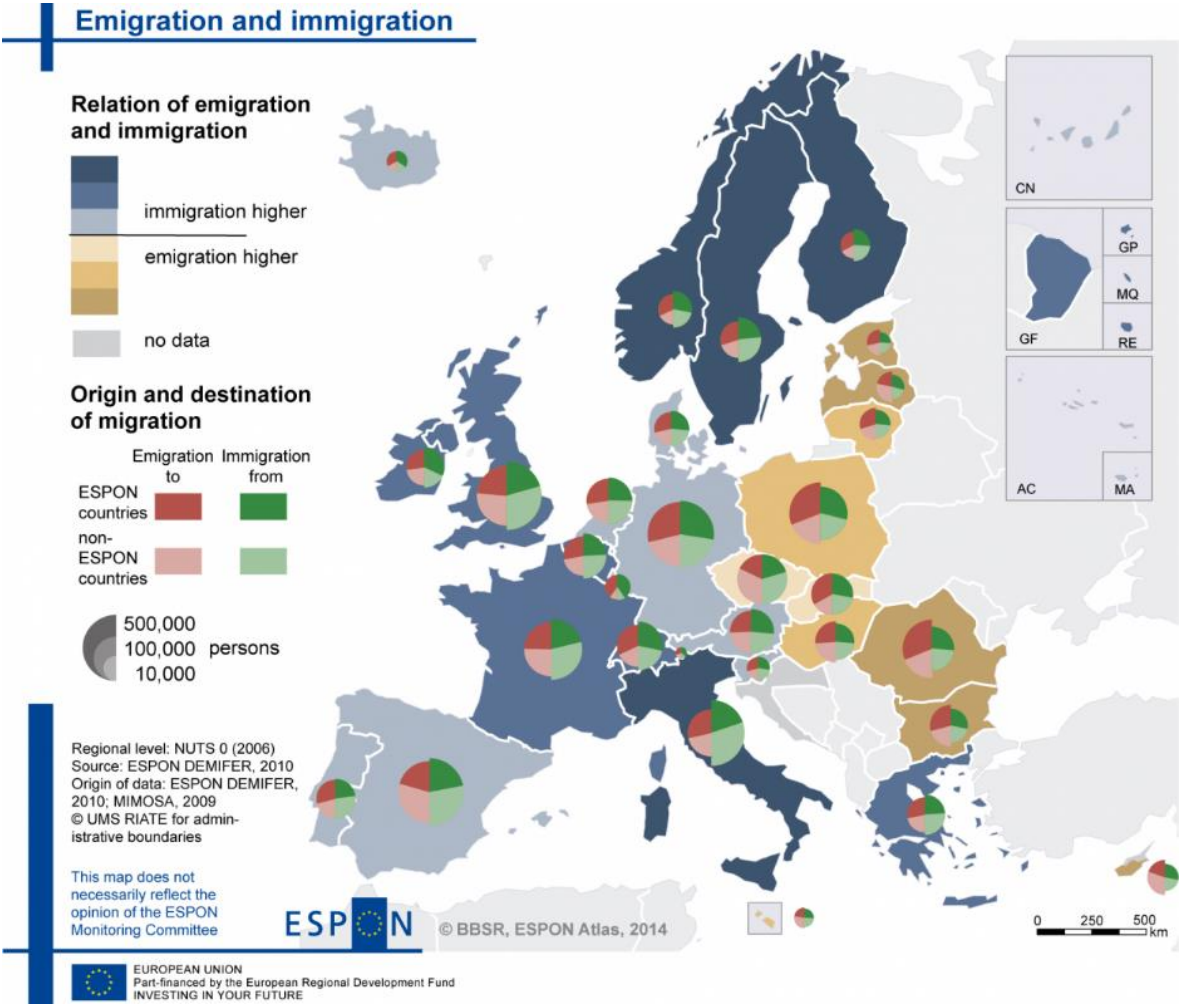
Explanatory factors migratory movements between European countries are primarily driven by so-called ‘opportunity differentials’, e.g. linked to employment and education opportunities and differences in wage levels. Retirement migration, further described under section 3.3, is rather linked to differences in climate and cost of living. However, a significant proportion of movements are also made for family reasons. While movements from east to west have attracted a most of the attention since the enlargement of the European Union in 2004-2007, they only constitute one aspect among many of complex migratory patterns in the European Union. The PIONEUR research project has revealed that migration in between the EU-15 has changed from concerning predominantly less skilled workers (blue collar occupations) to the migration of highly skilled workers (white collar occupations) (Koikkalainen, 2011). Also for intra-European migration, similar tendencies to intra-national movements can be identified; migrants between Member States are mostly young, well-educated and female (European Commission, 2014c).

The impact of these movements on individual regions is complex and difficult to estimate. Migration flows imply a transfer of working age population that can benefit receiving regions at the expense of sending regions. The additional available workforce can also tend to reduce labour costs and wages, which may generate tensions in relations between employers and employees. The cost of in-migrants that are not employed in terms of public service provision and social benefits has also been the object of intense debates. A synthesis of studies seeking to provide an evidence base for these discussions would be beyond the scope of the present report.

Since the economic crisis, east-to-west mobility has decreased, while south-to-north movements have increased. Spain, Iceland, Ireland, the Czech Republic and Portugal have moved from being in-migration countries in 2007 over to being out-migration countries in 2012 (ESPON, 2013b).

As shown by Figure 20, the difference between in-migration (green parts of pie charts) and out-migration (red parts) is quite limited. This illustrates how low net migration figures are compared to total volumes of in- and out-flows. All European regions are exposed to extensive and constant flows of population; relatively minor variations of these flows can lead to a change between positive and negative net migration. From a labour market perspective, these spatial movements of labour should be considered in relation to other movements, e.g. between branches of activity, between economic activity and further education, parental leave, sabbatical, sickness leaves etc. Such a more holistic perspective would better inform debates on the economic effects of intra-European migration.

Figure 20. Emigration and immigration in Europe, 2009 and 2010



Source: ESPON, 2014b.

1.4.3 Migration from non-European countries

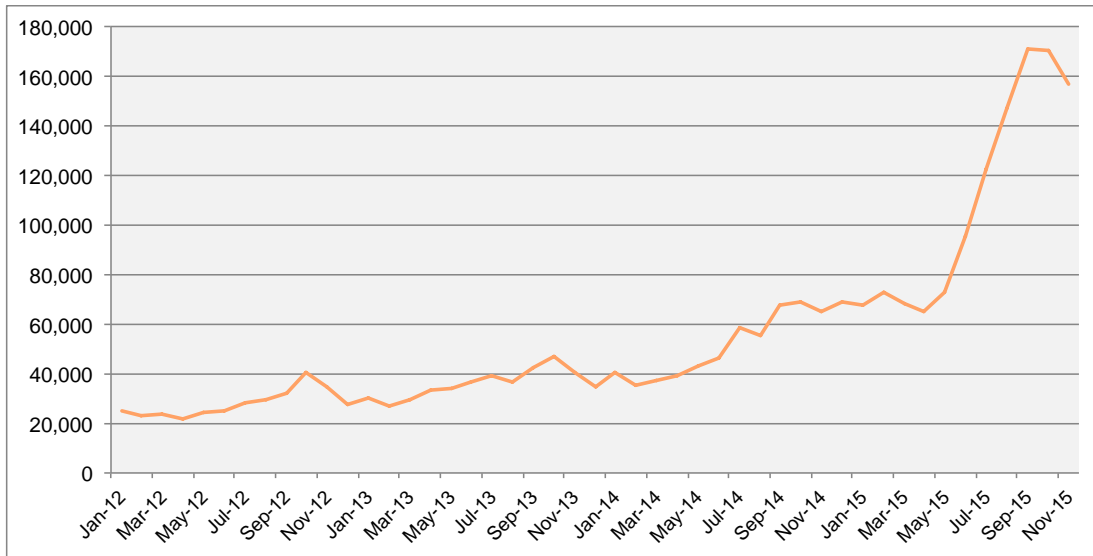
In 2011, 48.5 million inhabitants of the EU (9.5%) were born in a non-European country. Considering the continuous demographic change of the European population due to ageing and low reproduction rates, extra-European immigration can help to mitigate the negative impacts linked to the current demographic transition (Szalo et al., 2011).

The high growth rates of countries situated in the European neighbourhoods have contributed to a large stock of young people (Chapter 1.1.1). Due to insufficient employment possibilities for young people in these countries, conflicts induced by political instability or climate change may change their migratory pattern drastically what can lead to increasing pressure on the Union's outer borders. On the other hand, the inflow of working-age population can mitigate insufficient reproduction rates due to low fertility and ageing as consequences of demographic change.

The current dimension of the European refugee crisis is still too young to be addressed from a regional point of view. However, the analysis of national differences in terms of registered asylum seekers can help to outline first demographic consequences for LRAs. Eurostat provides monthly data on the number of asylum seekers per Member State (Figure 21). This illustrates the extent of the increase during this period, in relation to the crisis in Syria. As shown in Figure 23, these applications are unevenly distributed in Europe, with a concentration in Sweden (35 per 1,000 inh.) and Hungary (25 per 1,000 inh.), and to a lesser extent in Malta, Finland, Germany, Luxembourg and Belgium (between 10 and 17 per 1,000 in.). At the other end of the scale, Portugal, Slovakia, Romania, the Czech Republic, Croatia, Estonia and Spain have all received less than 0.5 asylum applications per 1,000 inhabitants. While the inflow of asylum seekers poses short term challenges to LRAs in terms of their reception, they therefore only constitute a significant inflow of migrants for a selection of countries.

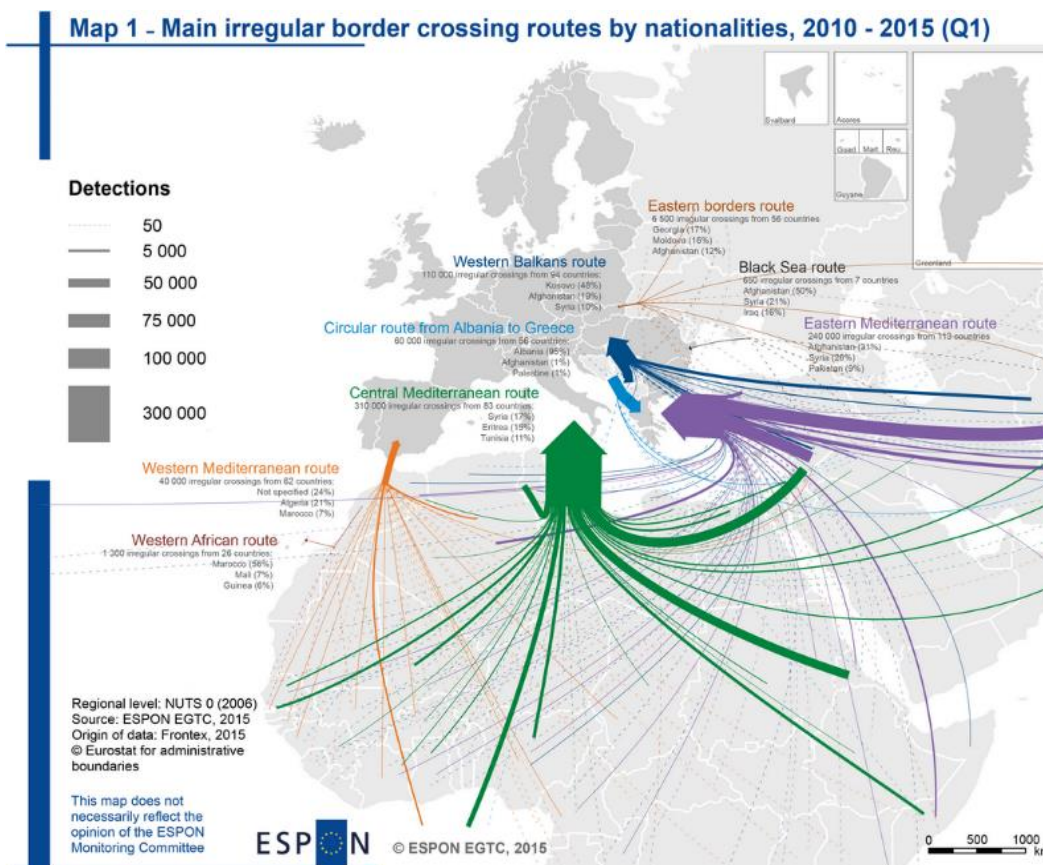
These figures obviously only reflect officially registered asylum seekers. Irregular border crossings affect other countries of Europe, as illustrated by Figure 22, the main irregular entry points to the EU are concentrated along its southern and south-eastern borders.

Figure 21. Total number of asylum applications in EU28 Member States between January 2012 and November 2015



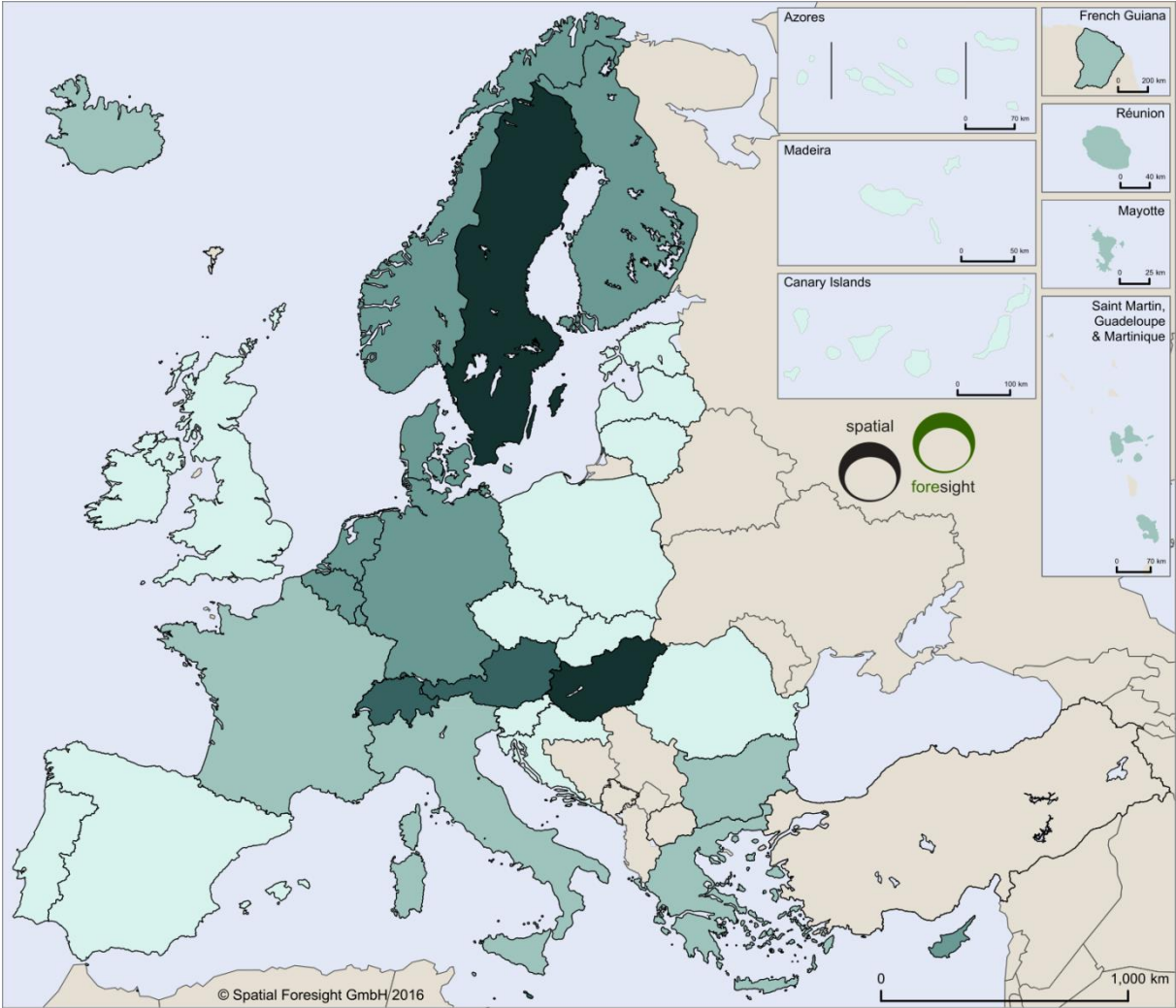
Source: Spatial Foresight, based on Eurostat.

Figure 22. Main irregular entry points in the EU (2010-2015)



Source: ESPON, 2015

Figure 23. Number of asylum applications per inhabitant between January 2012 and November 2015



Administrative boundaries: Spatial Foresight and University of Geneva based on material from Eurostat GISCO, the GADM database and the EEA.
 Data: Eurostat (migr_asyappctzm).
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Number of asylum applications per 1 000 inhabitants from January 2012 to December 2015

- < 2.2
- 2.2 - 5.6
- 5.6 - 13
- 13 - 24.4
- > 24.4

Number of applications for the above mentioned period (EU28): 2 714 905
 Number of applications for the above mentioned period (EU28 plus LI, NO, IS and CH): 2 892 835
 EU 28 average: 5.34 asylum applications per 1 000 inhabitants
 EU 28 plus LI, NO, IS and CH average: 5.54 asylum applications per 1 000 inhabitants
 No data for the year 2012 for HR available.

Source: Spatial Foresight.

1.5 Projections

This section is primarily based on the analyses of Eurostat's EUROPOP13 projections, using data for 1 January 2013 as a starting point. These projections are available at the national and the regional levels. Regional level projections are calculated for level 2 of NUTS-2010 classification, i.e. the classification that preceded the current one (NUTS-2013).

Five scenarios have been calculated for national level projections:

- main scenario - produced based on general assumptions for fertility, mortality and international net migration;
- no migration variant - obtained by considering the component of international net migration equals zero;
- reduced migration variant - produced considering that the component of international net migration is reduced by 20%;
- higher life expectancy variant - obtained assuming that life expectancy at birth is 2 years higher than the main variant by 2060;
- lower fertility variant - produced considering that total fertility rate is reduced by 10% by 2060.

Eurostat itself describes its projection as “one of several possible population change scenarios based on specific assumptions for fertility, mortality and migration”³. As noted by Wilson et al. (2013),

“The baseline scenario of the Eurostat projection issued in 2005 envisioned that the EU population would start shrinking in 2025 [...]; in the absence of migration, the EU population was projected to start shrinking as early as 2008. Two years later, the projected starting year of the EU population decline was put off to 2036 [...], whereas the [...] projections released in 2011 expect the EU population to peak around 2040.”

It is therefore important to envisage projection as decision-making guidance, and not as predictions of future development. They provide an indication of future developments to be expected if current patterns and trends are allowed to continue (baseline), and simulate results of possible changes.

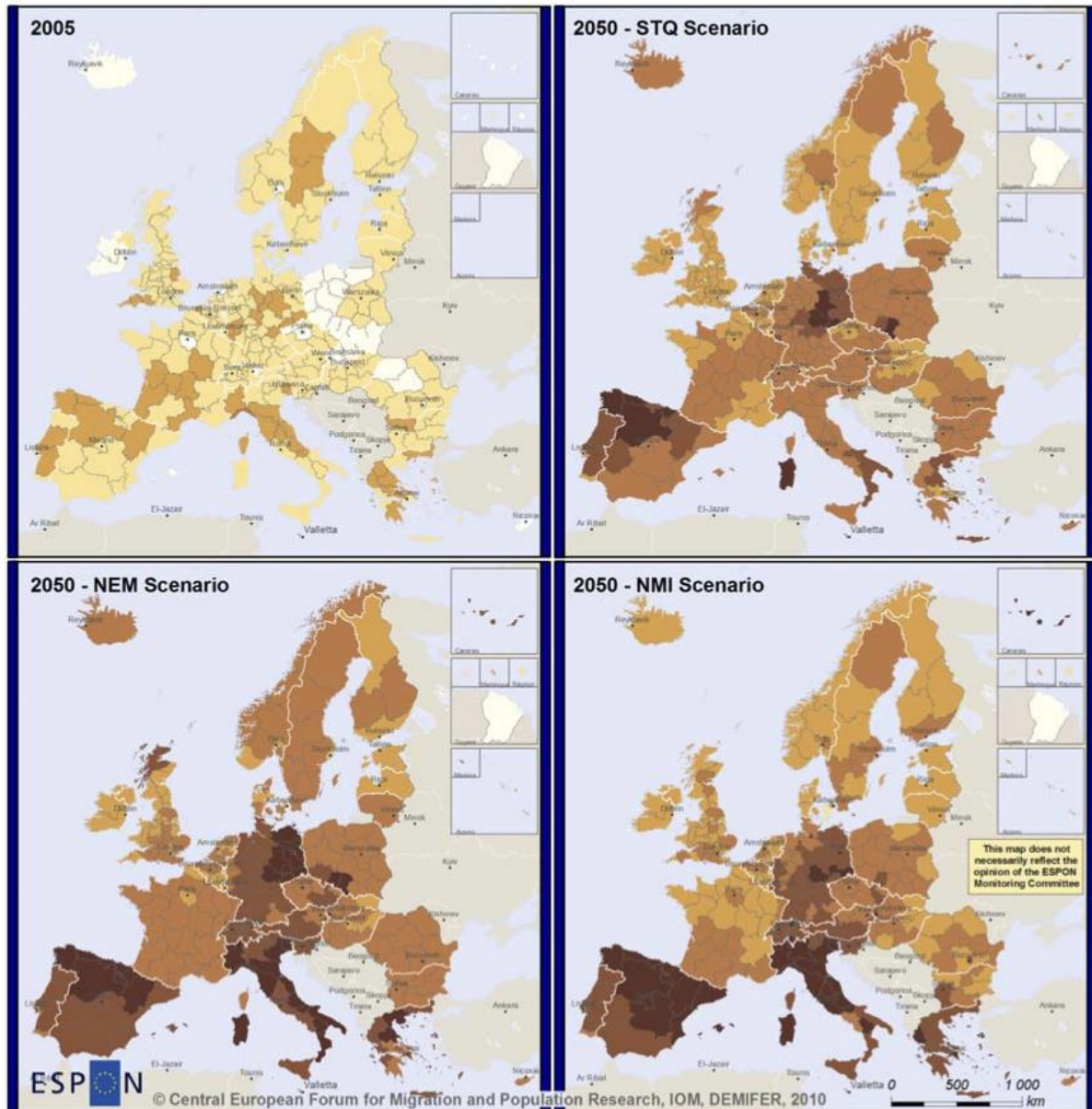
³ <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tps00002&plugin=1>

Eurostat's hypothesis is that key demographic determinants (fertility rates, mortality rates and levels of net migration) will converge. This for example implies that while fertility is expected to rise from 1.59 in 2013 to 1.76 in 2060 in the EU as a whole, it would decrease in countries with the highest values (Ireland, France and Sweden) and remain stable in the UK. Life expectancy is expected to increase most in countries where it is currently the lowest due to the yet unexploited potential. Future net migration flows are particularly difficult to estimate. Projections only based on the variables of fertility and mortality quickly lose accuracy and legitimacy in face of internal and external migratory influences (PRB, 2001). The major impact of national economic and political circumstances has been illustrated by recent events (as it was mentioned in the Introduction). The convergence hypothesis here implies that countries that currently experience net out-migration would progressively limit or reverse this trend.

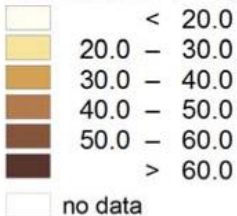
Regional-level projections from Eurostat only exist for the main scenario. In order to illustrate a regional picture, the population projections produced by the ESPON DEMIFER project for different scenarios of population projection at the level of NUTS 2 regions need to be assessed. However, detailed assessments of the different underlying hypotheses and methods applied by Eurostat and ESPON DEMIFER, respectively, are beyond the scope of the present study. It is therefore not possible to compare their respective results. Figure 24 shows the ESPON DEMIFER project's different scenarios for the development of old-age dependency ratios (ESPON, 2010c). Three scenarios are envisaged: 'Status Quo' (STQ), 'No External Migration' (NEM) and 'No Migration' (NMI).

The Status Quo scenario leads to the emergence of four European hotspots for increasing old-age dependency ratio; northern Spain, southern Italy (including Sardinia), eastern Germany and southern Poland. In a theoretical situation with no extra-European migration ('NEM scenario') differences between these 'hotspots' of ageing and rest of the European territory are accentuated. In addition, ageing is accentuated in northern Greece and in Italy. The third 'No migration' scenario leads to a situation where the highest regional age-dependency rates are concentrated in Spain and Italy.

Figure 24. Old-Age Dependency Ratio, 2005, DEMIFER Scenarios 2050



Old-Age Dependency Ratio in 2005 and in 2050 after 'Status Quo' (STQ), 'No External Migration' (NEM) and 'No Migration' (NMI) scenarios



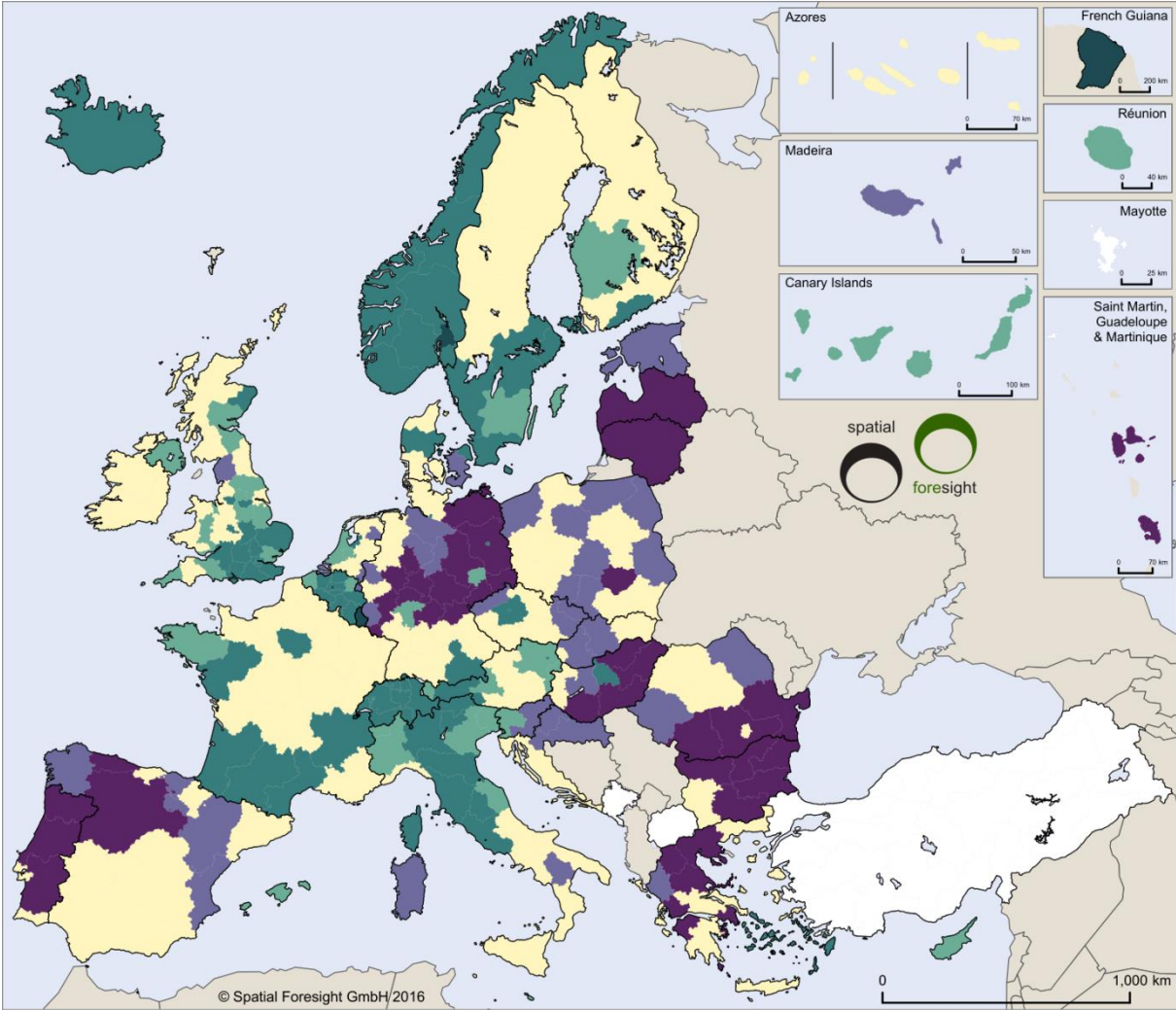
Source: ESPON, 2010b.

The 2013 version of Eurostat's main scenario foresees that the population of the EU28 will grow until 2050. However, until 2040 it envisages regional population decline in large parts of Europe, concentrated in the northern half of Germany, and eastern axis from Estonia to Greece and the north-western part of the Iberian Peninsula. Population growth is on the other hand foreseen in southern and western France (in addition to the Paris region), northern and central Italy, England, Belgium, Luxembourg, southern Sweden and selection of capital regions. Between 2040 and 2060, the pattern remains relatively unchanged, but with an accentuation of population decline in eastern parts of the EU (from Poland to Bulgaria), as well as in Greece, southern Italy and Portugal. Population decline would also then be observed in eastern France and Normandy.

This would lead to significant population changes in some parts of Europe. Compared to 2014 figures, Luxembourg's population would more than double by 2060, as well that of the Brussels region. The population of inner and outer London would increase by more than 60%, Copenhagen by 50%, Berlin and Prague by 50%. At the other end of the scale, population losses of more than 50% would occur in the Bulgarian region of Severozapaden, as well as in Sachsen-Anhalt and Chemnitz in Germany. An additional 13 regions would lose more than one third of their population, including Latvia, northern Hungary, French outermost region Martinique and a number of German regions.

Considering the ways in which these projections are constructed, and their long term perspective, it is not meaningful to look for changes in perspectives on demographic trends resulting from the economic crisis. The issue is rather to consider how the economic crisis may modify the strategic options to be envisaged in view of handling foreseeable demographic crises.

Figure 25. Projected annual population change between 2014 and 2040 based on the 2013 version of Eurostat’s baseline scenario



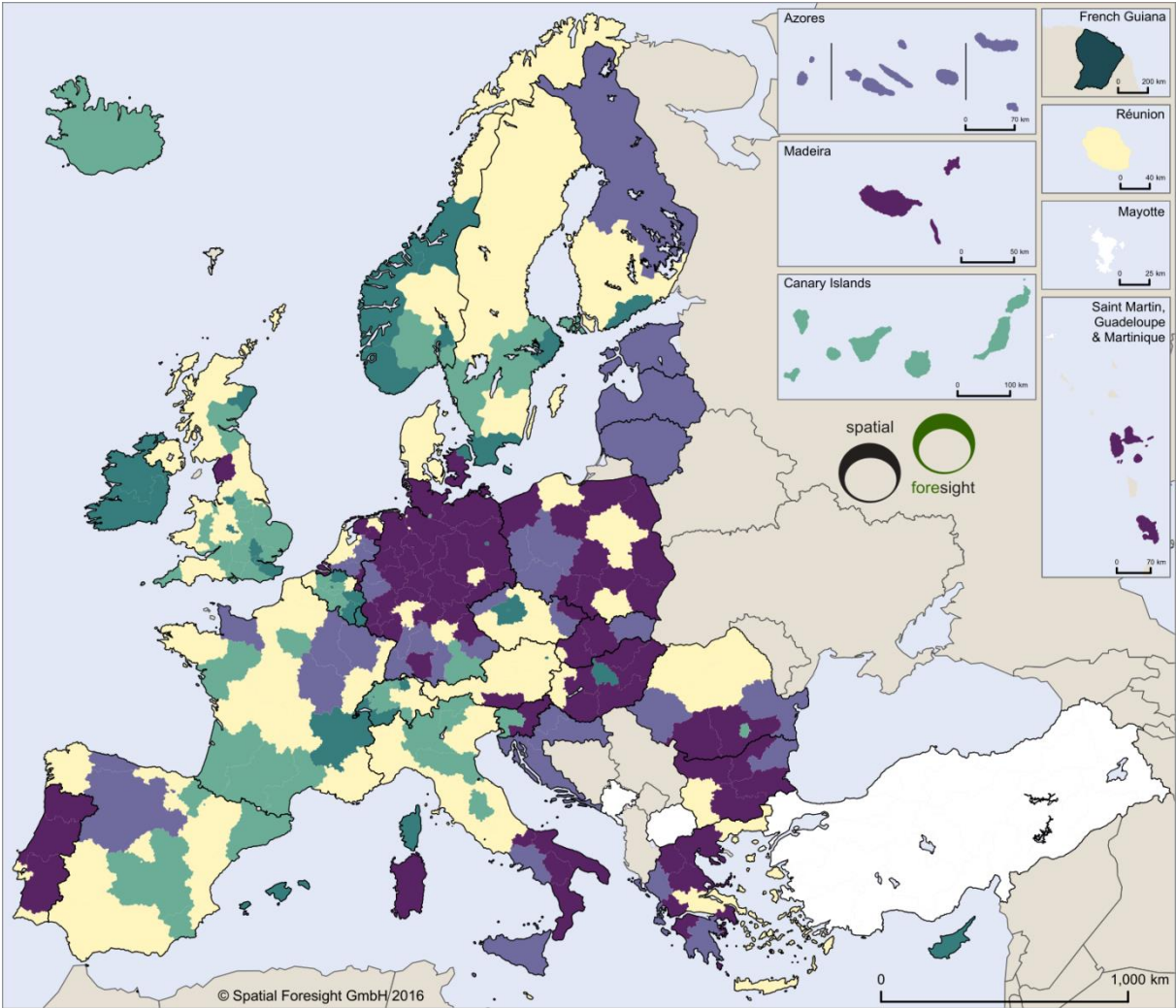
Administrative boundaries: Spatial Foresight and University of Geneva based on material from Eurostat GISCO, the GADM database and the EEA.
 Data: Eurostat (proj_13_raasfr).
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Projected annual average population development from 2014 to 2040 in %

- < -0.5
- 0.5 - -0.25
- 0.25 - 0.25
- 0.25 - 0.50
- 0.50 - 1.50
- > 1.5
- no data

Source: Spatial Foresight, based on Eurostat.

Figure 26. Projected annual population change between 2040 and 2060 based on the 2013 version of Eurostat’s baseline scenario



Administrative boundaries: Spatial Foresight and University of Geneva based on material from Eurostat GISCO, the GADM database and the EEA.
 Data: Eurostat (proj_13raasfr).
 Reproduction permitted for non-commercial purposes with full referencing of Spatial Foresight.

Projected annual average population development from 2040 to 2060 in %

- < -0.5
- 0.5 - -0.25
- 0.25 - 0.25
- 0.25 - 0.50
- 0.50 - 1.50
- > 1.5
- no data

Source: Spatial Foresight, based on Eurostat.

1.6 European Union initiatives addressing demographic change

In relation to the observed and foreseen trends described above, the 2005 Green Paper on demographic change (European Commission, 2005) states that the European Union should pursue three objective:

- return to demographic growth, through a “determined implementation of the Lisbon agenda (modernisation of social protection systems, increasing the rate of female employment and the employment of older workers)”;
- ensure a balance between generations, e.g. in terms of funding of pensions and health-related expenditure;
- find new bridges between different stages of life, e.g. employment for young people, active ageing.

However, concrete measures of the European Commission initiatives dealing with demographic change are few. The most important current initiative is DG Health and Food Safety’s ‘European Innovation Partnership on Active and Healthy Ageing’. This initiative seeks “*to improve older peoples’ lives, helping them to contribute to society, and reduce pressure on health and care systems*” through “*cooperation between the European Commission and EU countries, regions, industry, health and social care professionals and organisations representing older people and patients*”⁴.

Another central concern for the European Commission has been the sustainability of European pension systems. As noted in the 2012 White Paper *An Agenda for Adequate, Safe and Sustainable Pensions* (European Commission, 2012), the European Union has no powers to legislate on the design on pension systems, but can legislate on matters that affect the functioning of the internal market, tackle discrimination and protect workers’ rights. It also advocates mobilising the European Social Fund and other smaller funds to achieve related policy goals, e.g. in the fields of public health and life-long learning. It is also argued that the sustainability of pension systems should become a more important component of the European Semester, i.e. its yearly cycle of economic policy coordination that starts with surveys and opinions on national budgetary plans in the fall and leads to a dialogue on country-specific recommendations between May and July.

⁴ http://ec.europa.eu/health/ageing/innovation/index_en.htm

Intra-European labour mobility has been promoted through initiatives such as EURES ('European Employment Services') which is a cooperation network between employment agencies across Europe. Similarly, the current student mobility scheme Erasmus+ and its predecessors has significantly contributed to mobility in Europe. However, addressing demographic change is not a prominent component in the justification and design of these policies. In terms of extra-European migration, the European Commission notes that the European Union's "new policy [on legal migration] needs to focus on attracting workers that the EU economy needs, particularly by facilitating entry and the recognition of qualifications"⁵. However, this stance has not yet led to concrete policy initiatives.

Common Agricultural Policy (CAP) also pursues demographic objectives as part of its so-called 'Second Pillar' focusing on rural development. A first concern is to avoid land abandonment. During the 2007-2013 programming period, land abandonment was identified as potentially leading to desertification and forest fires, as well as to a loss of natural and cultural heritage and biodiversity⁶. In the 2014 -2020 programming period, the focus is on encouraging the "*development of services and infrastructure leading to social inclusion and reversing trends of social and economic decline and depopulation of rural areas*"⁷. Another concern is ageing among the farmer population. In 2012, two thirds of EU farmers were older than 55 (European Commission, 2012b). CAP therefore sees it as its mission to organise the handover to the next generation, e.g. through training and investment funding.

A number of demographic change-related initiatives have also been undertaken as part of European Territorial Cooperation programmes. The Keep database⁸, which lists projects undertaken under the 2000-2006 and 2007-2013 programming periods identifies 236 projects with the keyword "demographic change and migration". Some examples of such projects are listed in Table 1. As shown in this list, ageing is the primary concern addressed by these projects. A significant number of projects also deal with demographic decline in rural areas and in shrinking regions and cities. However, only a few projects deal with issues linked to birth rates or gender equality in relation to demographic change.

⁵ http://ec.europa.eu/dgs/home-affairs/what-we-do/policies/european-agenda-migration/index_en.htm

⁶ Community strategic guidelines for rural development (programming period 2007 to 2013), Council Decision of 20 February 2006, 2006/144/EC.

⁷ <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32006D0144&from=EN>

⁷ Regulation of 17 December 2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD), Official Journal of the European Union, L 347/487.

⁸ <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32013R1305&from=EN>

⁸ www.keep.eu

Table 1 **Examples of ETC programmes addressing demographic change**

Programme	Project name	Duration	Description
INTERREG IVB North Sea Region	DC NOISE (Demographic Change: New Opportunities in Shrinking Europe)	June 2008 - December 2011	Focus on the themes of innovative housing, service provision, monitoring and the labour market with the aim to raise awareness concerning population decline in the North Sea Region.
INTERREG IVB North Sea Region	iAge: E-inclusion in ageing Europe	Finalised November 2014	Improve regional development in areas of decline affected by an ageing population.
INTERREG IVB North West Europe	Cities in Balance	Finalised May 2011	Improve the quality of life of seniors and help to enable them to live independently.
INTERREG IVB North West Europe	Senior Enterprise	October 2008 to June 2014	Encourage a greater involvement in enterprise by those over the age of 50.
INTERREG IVB Baltic Sea Region	Best Agers	December 2009 to December 2012	Find creative ways of disclosing and utilising the hidden potential of people in the prime of their lives – the so called ‘Best Agers’ (defined in the project as people of 55 and older).
INTERREG IVB Baltic Sea Region	ICT for Health	December 2009 to December 2012	Strengthen social capacities for the utilisation of e-Health technologies. During the project period the participating regions compared and exchanged their strategies for improving the ability of the public and medical professionals to utilise e-Health technologies for better prevention and treatment in the context of an ageing population.
INTERREG IVB Central Europe	Q-Ageing	December 2008 to January 2012	Elaborate a toolbox of tested solutions that promote active ageing at a local level.
INTERREG IVB Central Europe	Senior Capital	October 2012 to December 2014	Establish a stronger economic role for senior citizens, as an alternative to active ageing.

Research projects funded under the 7th Framework Programme and Horizon 2020 Programme address similar aspects of demographic change as those targeted in the framework of ETC, with a focus on socio-economic implications of ageing and technological innovations for an ageing population. The Horizon 2020 programme has in particular funded the coordination of the Joint Programming Initiative (JPI) 'More Years Better Lives – the Challenges and Opportunities of Demographic Change'. This JPI seeks to enhance coordination and collaboration between European and national research programmes related to demographic change. It has also supported the AFE-INNOVNET Thematic Network Innovation for age-friendly environments in the European Union, of which the overarching goal is to “set up a large EU wide community of local and regional authorities (LRAs) and other relevant stakeholders who want to work together to find smart and innovative evidence based solutions to support active and healthy ageing and develop age-friendly environments (AFE)”⁹.

Overall, European initiatives addressing demographic change therefore primarily address ageing, with a limited number of initiatives that focus on the socio-economic implications of shrinking and demographic decline.

⁹ http://cordis.europa.eu/project/rcn/191769_en.html

2 Impacts of demographic change on public expenditure: Challenges and policy responses

LRAs are central actors when it comes to addressing the effects of demographic change in different respects. First, they are responsible for a large part of what the 2015 Ageing Report (European Commission, 2014a) defines as ‘public age-related expenditure’¹⁰. Second, demographic trends such as demographic polarisation and ageing have a strong impact on many LRAs’ income levels, both through taxation and budgetary transfers. Third, and perhaps most importantly, LRAs *de facto* need to bring into coherence a wide range of sectoral policies to provide good living conditions for their population; demographic growth or stabilisation is often considered as a benchmark of success (or failure) in this respect.

In this chapter we discuss the challenges faced by LRAs in providing services of general interest (SGIs) in a context of demographic change. This is done on the basis of literature reviews and case studies. SGIs are a crucial responsibility of LRAs towards their citizens. Their importance is acknowledged in the TFEU and SGI access is acknowledged as a driver of social and territorial cohesion in Article 36 of the Charter of Fundamental Rights of the EU. Such SGIs can go from non-economic services (e.g. justice, police, administration), to economic (e.g. transport, water, energy), to social (e.g. education, healthcare).

The Europe 2020 strategy (European Commission, 2010) sets two goals related to SGI for elderly people:

- 1) Having 75% of 20-64 year-olds in employment, and
- 2) Having at least 40% of 30-34-year-olds completing third-level education.

Given these goals, and the policy recommendations of the Committee of the Regions (2010), we focus on three types of SGIs:

- healthcare (sub-section 3.2);
- education/lifelong learning (sub-section 3.3)¹¹;
- labour market policies (sub-section 3.4).

¹⁰ Pensions, healthcare, long-term care, education, unemployment benefits and others.

¹¹ The reason for selecting ‘education/lifelong learning’ is not directly related to the Committee of the Regions’ (2010) recommendations, but from the need to include an SGI whose impacts are felt long into the future, so as to predict the readiness of LRAs for demographic change.

Current conditions of austerity and their strain on SGI provision constitute the backdrop for the analysis. The impact on LRAs concerning SGI provision, and namely the above-mentioned services, depends on their involvement and competences in these fields. This aspect is described in sub-section 3.1, which goes on to describe the pattern of regional disparities in LRAs' capacity to deliver SGI now, and in the future under demographic constraints.

Sub-sections 3.2, 3.3 and 3.4 build on this background by narrowing the scope of the analysis to each 'key' SGI: starting from identifying challenges in service provision due to austerity, moving on to describing the social consequences of ageing for the respective SGI and concluding with an overview of innovative approaches and responses to ageing from LRAs throughout Europe. In each sub-section, we combine literature reviews with results from case studies providing example of good practice.

2.1 Local and Regional government in the face of demographic change

Demographic change can occur through various processes, such as ageing, evolutions in birth rates, or internal and external migration. The extent to which LRAs are directly confronted to demographic change depends on different factors:

- **Fiscal autonomy:** to what extent do LRAs decide on taxation levels? To what extent are their activities financed by taxes they levy themselves?
- **Influence in decision-making processes** in relevant sectors, e.g. labour market measures, housing, integration of migrants, social services, schools, higher education and health policy;
- **Operational responsibility** for providing or procuring SGI.

To understand the challenges LRAs face with regards to SGI provision, one can first consider their competence in this field. SGIs can encompass a vast array of services, but we have chosen to focus on three: **healthcare, education and labour market policies**. The competences of LRAs in these three fields are detailed through Table 2 on p. 66 (long-term care), Table 3 on p. 76 (education) and Table 4 p. 82 (labour market policies). Table 2 describes how responsibilities are divided in legislating, financing and delivering long-term care and employment services between local, regional and national authorities or private and civil society actors. Table 3 in a similar way provides information on

the autonomy of primary and secondary schools in managing their own financing, staff and curriculum. The two tables provide a good indication of how flexible local/regional SGI providers are to adapt to local demographic and economic changes, expanding the debate later on in this sub-section to these mentioned changes.

As shown below, responsibilities for SGI provision are distributed very differently in EU Member States. In the case of Belgium and the UK, these differences even occur within Member States. This diversity of situations and SGI models implies that it is difficult to formulate general assessments or proposals on the challenges faced by LRAs in a context of budgetary constraints imposed by the recent financial crisis on public expenditure. Text Box 1 illustrates how the challenges can be of such complexity that they require external and methodological support. This is partly linked to the fact that LRAs need to address demographic changes that may be radical and rapid, at the same time as the institutional, regulatory and financial frameworks in which they are asked to operate change only slowly. Public action in this context requires considerable ingenuity and ‘thinking outside of the box’.

Text Box 1. Demographic coaching in Thuringia, Germany

The Saale-Orla District in Thuringia is affected by rapid population shrinkage and ageing, which is considerably above average values for this Federal state. The difference with overall values for Germany is even greater. Between 2000 and 2014 the district lost about 16% of its population (Thuringia: 11%). Until 2035 it is expected that the district lose yet another 18.8% of its population as compared to 2014. In 2014, almost 25% of the population was older than 64 years, compared to an average value for Thuringia of about 20%. The Saale-Orla district is therefore heavily affected by demographic change. The Central Europe INTERREG IVB project ADAPT2DC (Adaptation to Demographic Change) 2007-2013, led by the Thuringian Ministry for Construction, Regional Development and Transport (TMBLV), addressed this development and aimed at developing innovative solutions to adjust the management of services and infrastructures in shrinking regions. In this context six pilot actions were implemented.

In the Saale-Orla District, the Thüringer Landesgesellschaft (Thuringian Association for Rural Development) on behalf of the TMBLV, established a ‘demographic coach’ to work on demography-specific tasks and issues. The coach acted as an external and independent advisor and coordinator for more than one year (July 2013 – October 2014).

The project aimed to develop innovative and transferable approaches for regions affected by demographic change, to reduce costs (e.g. for providing services of general interest), to develop strategies and recommendations that were to be supported by specific pilot actions. To make it possible to achieve these objectives, the coach focused on communication, coordination and networking activities. The ambition was to bring together various local and regional stakeholders (e.g. authorities, associations, planning bodies, chambers). Based on a SWOT analysis that considered not only demographic developments but also the economic situation, labour market, settlement structures, education as well as social and transport infrastructure, a variety of ideas and possible approaches were developed. From this variety the following three actions were selected by a committee with members from the TMBLV, the Landgesellschaft, the LEADER region, and the district administration:

- **KombiBus.** To make regional public transport more efficient and attractive and maintain the level of public transport, the regional bus system was to be reorganised so that both goods and passengers can be transported. A legal study and a market potential assessment were conducted to analyse the framework conditions and to provide the strategic entry point for the establishment of the now established KombiBus.

- **Cooperation between fire brigades.** In this pilot action synergies were developed between different fire brigades to maintain a region-wide coverage of fire services. It aimed to reduce maintenance costs and sharing firemen between different brigades within the district, e.g. by means of double memberships of firemen.

- **Vacancy cadastre and town centre development.** For this pilot action cadastral land register information and official population data were combined to illustrate graphically vacant buildings and vacant building lots. The outcome is a sound basis for decision-makers to define targets and measures for future development and to improve decision-making regarding services of general interest.

The key aspect of the demographic coach is the applied methodological approach. As an independent and external player the coach can promote cooperation between different stakeholders from the public and private sectors. The coach supports local and regional stakeholders and promotes bottom-up and participatory approaches when it comes to the identification, development and implementation of suitable small-scale actions. This way the approach takes into consideration the specific context of a region from the very beginning. As a result, it can easily be transferred to other regions in Europe. The variety of identified pilot actions in the Saale-Orla District furthermore illustrates the variety of demographic change-related challenges that may be addressed through demographic coaching.

Sources: (Rota, 2013); (Rota and Dutto, 2013); (Tomay et al., 2014); (Ruge, 2013); (Ruge, 2014).

In terms of economic constraints, the recent financial crisis took a large toll on public expenditure throughout Europe. **Nordic states**¹² responded with budget cuts and pay freezes (Hansen and Mailand, 2013). In Denmark, the budget of municipalities was cut by EUR 0.6 billion¹³ (Baes-Jørgensen, 2011), leading to a public sector employment decline of 2.9% from 2010 to 2012. The crisis response also increased central government control on municipal budgets, triggering LRAs to adopt ‘efficiency measures’ such as restructuring school areas, reorganising central management, digitalisation and outsourcing of some services. (Hansen and Mailand, 2013).

In **the UK**, local authorities are estimated to have lost 25% of their spending power from 2010 to 2015, given the gradually-reduced government funding by a 28% cut in 2010 to a 37% cut in 2015 (Morse, 2014). According to Hastings et al. (2012), authorities in the most deprived communities were the hit the hardest. Solutions were implemented according to the ‘Big Society’ ideology, implying that citizens and voluntary groups take on more responsibility for delivering services traditionally delivered by local authorities.

A broader impact of the crisis on public budgets is given by Kickert et al. (2015), who run a comparative analysis on **12 EU Member States** plus Iceland and Norway and show that indiscriminate public budget cuts were often the first step in reacting to the crisis. In countries more affected, especially in the south (Di Mascio and Natalini, 2015), targeted cuts were then implemented, leading to public sector pay freezes, staff reductions, reorganisation and efficiency cuts. The most affected SGI were health, education and welfare.

¹² Denmark, Finland, Norway and Sweden.

¹³ 20% of municipalities had a budget reduction of 4% or more from 2009 to 2011.

Regardless of these reforms, observers like Pollitt (2014) find that such measures were mainly taken as short-term solutions for fiscal constraints, and would not fit the challenges of ‘megatrends’ such as demographic and climate change. The lack of a long-term vision, he argues, is due to the political system’s increased electoral volatility and the personalisation of politics.

In terms of economic inequalities, the large east-west and increasingly north-south income inequalities among EU Member States are expected to persist at least until 2030 according to projections produced by the ESPON programme (ESPON, 2014). A ‘core-periphery’ economic development pattern is foreseen both for income as well as for productivity, the latter of which directly affects labour market trends, and thus the resilience of regions in the face of demographic change. However, as shown in chapter 2, LRAs can also benefit from an ageing population through the emergence of the silver economy, through remittances, regional branding and so forth. Existing projections do not necessarily manage to integrate structural changes in the economy resulting from ageing and new settlement preference and mobility patterns remain.

The provision of public or social services is therefore for different reasons undergoing a period of radical change. While it is difficult to look beyond the current period of fiscal retrenchment, it is evident that we may be witnessing something of a paradigm shift from what we used to think of as ‘social security’ towards what could be termed ‘social productivity’. This implies that service users are becoming more involved in setting public service priorities, defining solutions and implementing them, thus creating a form of ‘active engagement’, where social outcomes are no longer understood to be ‘automatically delivered’ by services alone but, rather, are created by the ongoing interaction between users and service providers, with social services thus being effectively ‘co-produced’. Organising SGIs thus entails a division of (public) responsibility. Public, private and civic providers can all be tasked with SGI provision, either in co-operative arrangements or exclusively (Rauhut et al., 2013). An example of a first step in this direction of adapting SGI to demographic trends is given in Text Box 2 below, on how a LRA in Slovenia prepares its infrastructure for the future in the specific context of regional population decline. Such pro-active measures, like the demographic coaching exercise illustrated in Text Box 1, are practical ways in which LRAs can best prepare against, and even benefit from, demographic changes.

Text Box 2. Innovative tools to manage oversized public infrastructure in Slovenia

Population shrinkage has an impact on the sustainability of public infrastructure in municipalities, especially due to high maintenance costs and decreasing public revenue. The case study is about a pilot action to reduce these costs in the Podravje region in Slovenia, particularly in the city of Maribor. Maribor is the most populated area in the region, but has been exposed to shrinking and population ageing since the 1980s due to out-migration into suburban areas and low fertility rates (OECD, 2012). Although Maribor plays an important economic and cultural role, it has an extremely weak population age structure. Its ageing index is the highest (175) among the 41 municipalities of the Podravje region. If the existing demographic trends persist it will reach 255 in 2040, so as total population will diminish of almost 27,500 inhabitants in three decades. The pilot action was implemented within the ADAPT2DC project in the Central Europe Programme 2007-2013.

Shrinkage of population leads to increasing financial burden on public budgets due to consistent maintenance costs for publicly owned infrastructure opposed to decreasing public revenue from taxes and transfers. Saving costs e.g. through the refurbishment of existing public buildings or the use of energy-saving technology for street lighting, and the establishment of alternative financing sources such as parking fees are important building blocks to maintain infrastructural supply for the remaining population.

The main objective was to find solutions to reduce the municipal costs for maintaining public buildings and roads. Therefore several cost reduction tools were used for the city of Maribor. The pilot action began with geographical mapping and analysis of publicly owned infrastructure in order to identify potentials for reduction of maintenance costs. In the next step, the quantitative estimation of the possible savings for the selected individual buildings was carried out. Intensification and possible changes of the use of public houses were employed as main instruments for reduction of maintenance costs per square meter.

The methodology used includes also preparation of general savings measures in management, maintenance and operations of public infrastructure. The use of state-of-the art Geographic Information System (GIS) tools and spreadsheet analysis makes this an innovative, simple and comprehensive tool, which can be transferred to other regions. The developed algorithm is implemented as spreadsheet analysis programme. This enables users to easily change the input parameters and easily re-use this tool for other situations. Furthermore, the results of this tool are quite specific and improve the decision making process in a municipality.

For Maribor the first testing of cost savings on selected samples were calculated: about 14% average savings per square meter can be achieved in case of developing the attic of buildings and about 28% of costs for road maintenance can be reduced in case by-street parking is introduced. Additionally, extra income can be generated from parking fees. The introduction of Light Emitting Diodes (LEDs) leads to a drop in electricity consumption of street lighting of about 68%.

Sources: (Martinez-Fernandez et al., 2012); (Rota and Dutto, 2013); (Tomay et al., 2014); (Borowski, 2014).

The Committee of the Regions stresses that services and facilities cannot always continue to be provided in traditional ways in areas undergoing major demographic changes (Committee of the Regions, 2007). The challenge for regional and local public and private operators is to make use of new ideas and technologies to improve the organisation and funding of their services and facilities. The same opinion is shared by several EU institutions, including the European Commission (2015, 2014) and the European Parliament (2010).

Different, robust ways of guaranteeing accessibility should be stimulated, for example looking at 'e-inclusion'. This includes e-services such as e-health, e-training, e-care and e-assistance, home automation, tele-care, tele-shopping and tele-learning, and also the development of new regional transport systems or the further development of existing public transport systems; as well as encouraging the use of Information and Communication Technology (ICT) to achieve greater social and territorial inclusion for the elderly. (Committee of the Regions, 2010).

2.2 Health care, prevention and quality of life

Within the 2015 Ageing Report (European Commission, 2015a), projections of public expenditure on health care from 2013 to 2060 were run using Commission services' models on the basis of the methodology and data agreed with the Member States delegates to the AWG-EPC. It should be noted that the projections focus on 'core' health care and exclude long-term nursing care. Demand for health care provision is sizeable and its potential benefits are high. In EU27, 9.8% of total employment was in health and social activities, representing the large impact of healthcare for jobs (Cambridge econometrics, 2013). However, those benefits come at a substantial cost: in the EU28 total expenditure on health care equalled 10.1% of GDP in 2012. A substantial part of

this expenditure – 7.8% of GDP on average¹⁴ in the EU28 in 2012 – is public spending.

The RAND report sees the influence of budget restrictions owing to the financial crisis and to population ageing and the emergence of more complex household patterns as challenges for current pension provision (Guerin, 2013). Finding solutions to these issues may lead to an increase in at-risk-of-poverty rates in old age (Centre for Strategy and Evaluation Services, 2010). This may in turn generate new challenges for local and regional social services.

Indeed, Eurofound (2014) suggests that the crisis strongly affected access to healthcare for people that were not considered vulnerable before the crisis, but that were hardly hit through reduced income, job loss and the loss of some social services. In healthcare, the extra demand created by this group of people was addressed through trying to make savings on services offered, through using other public resources, more leniency in enforcing co-payments, reduced hospital stays and organisational changes. Carmona López et al. (2015) confirm this strong impact of the financial crisis on access to healthcare for the vulnerable in Spain. There, budget cuts triggered the system to deny the right to regular healthcare to several groups, most notably to immigrants outside the social security system. Previously, Spain was among the countries with the best access to healthcare for undocumented migrants in the EU. (International Organisation for Migration, 2009).

Faced with both economic and demographic challenges, the healthcare sector is in need of innovative ways to combine cost-efficiency with increased availability of care services, as to satisfy the growing demand. This section focuses on possible responses of LRAs to these challenges, focusing in particular on the concept of ‘integrated care’ (Pisco, 2008), on eHealth and telemedical services and on the involvement of Non-Governmental Organisations (NGOs) and Social economic actors in the provision of health related services.

“Integrated care is when health care professionals consider all health conditions at the same time. If, for example, a person is taking two or more medications at the same time, including a medication for a mental health disorder, doctors can monitor the interaction of the drugs. Integrated treatment is more likely to be tailored to the individual, as it allows for health care professionals to understand more about the whole person.” (SAMHSA, 2012).

¹⁴ The averages presented in this Chapter are weighted according to GDP, as explained in the 2015 Ageing Report "Underlying assumptions and projection methodologies".

Integrated care can work by locating several health services in the same building, or having professionals from different fields working together on the same patients, creating ‘patient-centred medical homes’ where a team of healthcare professionals is responsible for each person’s care, and so forth. The benefits of such an approach includes fewer medical tests, the avoidance of repetitions (such as blood draws), better coordination in terms of treatment and a convenient ‘one-stop-shop’ care system for both patients and professionals. (SAMHSA, 2012).

Table 1 below describes the legislation, provision and financing of long-term care services in EU Member States. While elderly care is regulated at the national level in all European countries (with partial exceptions in Austria and Belgium), different models appear with regards to its financing. A Nordic model of state-supported local funding can be opposed to national funding in Ireland and the Netherlands, and to more regional funding systems in Spain and Italy. These differences must also be considered in the light of difference in the general approach of elderly care. Bettio and Verashchagina (2012) oppose the ‘universalistic approach’ of Nordic countries to traditionally ‘familistic’ Mediterranean countries. They also note evolutions in this respect, as universal financial coverage is being developed in some countries such as Austria, Germany, Luxembourg and the Netherlands and as Spain adopted a law making the state responsible to provide care for all disabled persons in 2006. Reportedly, other countries (France, Hungary, Romania, Slovenia and Poland) consider insurance schemes to cover long-term care. The roles of LRAs in the financing and provision of long-term care naturally changes when such insurance systems are in place.

Table 2. Division of responsibility for legislating, financing and delivering long-term care services for the elderly

LONG-TERM CARE			
¹⁵	Legislation	Financing	Delivery
AT	NAT, REG	NAT, REG, LOC	REG
BE	NAT (<i>health</i>), REG (<i>social, personal care</i>)	NAT, REG, LOC	NAT, REG
CZ	NAT	NAT, LOC	LOC
DK	NAT	LOC (<i>social</i>), REG (<i>health</i>)	REG, LOC
EE	NAT	NAT	NAT, LOC
FI	NAT	LOC (<i>NAT subsidies</i>)	LOC
FR	NAT	NAT, LOC	NAT, REG, LOC
DE	NAT ¹⁶	NAT	NAT, REG

¹⁵ NAT = Federal or national; REG = regional, Lander or county-level; LOC = local or municipal.

¹⁶ At the time of drafting the report (2011), the process was to transfer this to regions (Lander). Up to that date, four Lander began putting legislation in place.

LONG-TERM CARE			
¹⁵	Legislation	Financing	Delivery
GR	NAT	NAT & LOC (<i>small role</i>)	NAT, LOC
HU	NAT	NAT, LOC	NAT, REG, LOC
IE	NAT	NAT	NAT (<i>health, social</i>), LOC (<i>housing</i>)
IT	NAT (<i>general rules</i>), REG (<i>specific rules</i>)	REG, LOC	REG, LOC
LV	NAT	NAT, LOC	LOC
NL	NAT	NAT	NAT
PL	NAT	NAT, LOC	NAT
PT			
RO	NAT	LOC	LOC
SK	NAT	NAT, REG, LOC	REG, LOC
SI	NAT	NAT, LOC	NAT, LOC
ES	NAT (<i>standards</i>), REG (<i>rules</i>)	REG (<i>NAT financing framework</i>)	REG (<i>health</i>), LOC (<i>social</i>)
SE	NAT	REG, LOC (<i>with NAT support</i>)	REG (<i>health</i>), LOC (<i>social, housing</i>)
UK	NAT	NAT, LOC	LOC

Source: (Polacek et al., 2011).

Van Raak et al. (2003) study the application of the integrated care model in six EU countries. Though a bit dated, the book refers to the increasing pressure of demographic changes on health services: with ageing, care demands are increasingly complex. An integrated care system would therefore reduce costs and streamline the SGI for both patients and health professionals. However, as noted also by Polacek et al. (2011) (see Table 2 above), Van Raak et al. (2003) find a very fragmented system of legislating, providing and financing the different care services. Case studies in Finland, Sweden, Austria, Spain, The Netherlands and England, show how governance arrangements in each country reflect original Bismarck (financing based on compulsory social insurance) and Beveridge (financing from general taxation) models of providing healthcare. Despite the numerous obstacles to integrating care services in these countries, Van Raak et al. (2003) identify good practices such as introducing ICT systems in Finland and Austria, pursuing a so-called ‘chain of care’ concept in Sweden, or engaging stakeholders to increase their trust and commitment in the Netherlands. An important conclusion they reach is that integration of care depends on the relative power held by professionals: in countries with an individualistic culture, integrated care is better developed than in those with a collectivist approach.

On the benefits of integrated care, Lloyd and Wait (2006) mention the need to address increasing care demands due to ageing, a more person-centred care,

increased social integration of the more vulnerable groups and increased system efficiency. They suggest policies to be adapted to local realities.

LRAs often have limited potential to impact healthcare legislation, at least in the long-term care field. However, they can influence the funding and delivering of such services, as evidenced by Polacek et al. (2011). In terms of integrated care, what LRAs could do, as in the Dutch example presented by Van Raak et al. (2003), is to facilitate stakeholder engagement and network creation among care professionals. This can be done, for instance, through supporting local representative groups of such professionals, organising conferences of common interest for the broader care sector, fund projects and initiatives that cross between different care fields, and so forth.

eHealth and telemedical services, as well as the use of advanced ICT processes is another way for facilitating integrated care, as shown by Van Raak et al. (2003), and to address the budgetary and demographic challenges present in the health sector. eHealth services, in particular, are relevant in case of border regions, where Capgemini et al. (2013) suggest that electronic access to patient summary would be profitable to implement in cross-border areas from a cost-benefit analysis perspective. Even though the study estimates that over 20 million EU citizens would use such services, saving an estimated EUR 36.3 million and with a return on investment in less than 4 months, service availability is very low due to several issues commonly found with cross-border services:

- a) Barriers in bilateral interaction, such as eID, eSignatures and language issues;
- b) Readiness of local infrastructures, stakeholders and legislation;
- c) Need for stable governance mechanisms to ensure sustainability.

Capgemini et al. (2013) identify the largest potential in cross-border services (in terms of high usage and low maturity level) in eHealth services. They recommend Member States to profit from such opportunities, given that implementing them would cost about 4.9% of the total implementation costs for an online government service. Thus, the extra cost of extending e-services cross-borders is very small compared to its potential benefits. Where possible, LRAs can intervene to facilitate the compatibility of health services (e.g. patient's records, prescriptions, health coverage, etc) with their neighbouring regions through pilot projects or through networks creation.

At national level, **telemedical services** are also a solution to address the growing depopulation in some (especially rural) areas and in geographically specific territories. 'Telemedicine' refers to the use of ICT to provide healthcare

services at a distance. It includes four fields: teleradiology, tele dermatology, telepathology and telepsychology. This can be done through virtual (phone, satellite, fibre optic, etc.) transmission of communications, images and health informatics data between patient and health professional. At global level, the World Health Organisation (WHO) established the ‘Global Observatory for eHealth’ (GOe), a body reviewing the benefits of ICT in healthcare and for patients’ wellbeing, in 2005. The GOe takes the pulse of current eHealth trends and provides guidance and information on best practices, policies and standards in eHealth. (World Health Organisation, 2010).

Text Box 3. Telemedical services in Małopolska, Poland

Telemedicine or telehealth is defined by the Commission’s communication on ‘telemedicine for the benefit of patients, healthcare systems and society’ as the provision of healthcare services at a distance, based on the use of ICT for interaction between doctors or specialists and patients. The services target primarily chronically ill elderly citizens that require intensive care in areas where the medical infrastructure is distant or too expensive to be implemented.

The current state of implementation of telemedical services is limited to a few pilot projects, namely Renewing Health, United4Health and illness targeted projects such as ELECTOR for arthritis patients and THALEA for intensive care units. Especially in regions experiencing demographic change, the new services bear potential for reaching out to a higher number of patients and to reduce health care costs. The Polish region Małopolska implemented a pilot project to provide telemedical services to 100 elderly patients under the framework of the ERDF-funded initiative ADAPT2DC (Adapt 2 Demographic Change) 2007-2013.

Even though Małopolska region with the regional centre of Krakow is expected to grow slightly, it is confronted to contrasted demographic developments that lead to intense ageing in its north-western part. This poses challenges to local health care systems. The objective of the measure was to provide tele-electro cardiograms (ECG) to examine the beneficiaries’ health status while at the same time improving their quality of life and prevent further worsening of their medical condition. At the same time, the patients (all older than 55 years) received medical assistance in person and *via* distant aid, ensuring high quality health services to each of the participants. Patients were equipped with (free) tele-ECG devices and asked to measure vital health data at least three times a day.

Nearly all of the 100 patients successfully finished the one-month programme, serving as sufficient proof that the introduced services can contribute to a higher quality of services while at the same time reducing costs. In addition, telemedical services can reach patients being at risk of social and territorial

exclusion. It therefore helps to address contemporary demographic developments in many European regions. However, implementing such solution presupposes access to a reliable and sufficiently fast internet connection.

Telemedicine is an expanding field. Technical innovations make it possible to envisage new solutions. However, personnel in all types of medical organisations, from specialised units in hospitals to local health centres, also need to learn to use these new technologies. The region of Małopolska has created a network of dialogue and cooperation for this purpose.

The implementation of the structures was based on existing links between local medical centres and the university department situated in Krakow. Through the support of the Krakow Centre of Telemedicine, local hospitals were equipped with digital infrastructure to exchange data and images while at same time enabling personal interaction.

Source: (Adapt2DC, 2012; Duplaga et al., 2004; European Commission, 2015b, 2008; Wozniak, n.d.).

In its 2009 survey, the World Health Organisation (2010) highlights that 30% of the 114 respondent countries have a national agency for promoting and developing telemedicine, while the highest rate of established service provision is 33% for teleradiology. The most frequently cited barrier for extending telemedicine solutions is the perception that its costs might be too high. Indeed, 70% of countries wanted more information on cost and cost-effectiveness of telemedicine, and 50% wanted to know what infrastructure is necessary for its implementation. The WHO recommends:

- a) the creation of national agencies to promote telemedicine implementation;
- b) to improve collaboration between stakeholders (i.e. policymakers, health administrators, health professionals, academic institutions and communities);
- c) and to encourage telemedicine research. (World Health Organisation, 2010).

In this context, LRAs can do their share to promote telemedicine research and to improve stakeholder collaboration in their area, as illustrated by the example of the pilot project in the Polish region of Małopolska in Text Box 3 above, where regional authority played a driving role connecting potential users, medical staff and developers of technical solutions. Of particular relevance are also pilot projects to deploy telemedicine solutions in ageing or sparsely populated areas to test their effectiveness. The European Commission is taking steps to increase

the spread of telemedicine (European Commission, 2008), and sometimes co-finances pilot projects using the European Structural and Investment Funds (ESIF). LRAs interested in promoting telemedicine on their territories could also make use of ESIF to fund innovative ideas that would help create the infrastructure or knowledge necessary to kick-start a broader use of telemedicine in the region.

Within, or next to eHealth, LRAs can also make use of **private or social economy health service providers**, to balance their public service obligations with their budget constraints. As a consequence of the recent financial crisis, Guerini and Roelants (2013) point to the rise of social cooperatives as SGI providers in fields like health, social services, education, social housing, etc. This rise is particularly strong in post-crisis years in Italy (32.4% increase in output value between 2008 and 2013, despite an increase in labour costs of 35.6%), France (30% increase in the number of worker cooperatives and multi-stakeholder cooperatives between 2012 and 2014) and Spain (23% of Spanish cooperatives were created between 2012 and 2015) (CICOPA, 2015). According to Guerini and Roelants (2013), this rise is due to the social orientation of such cooperatives, which can withstand short-term shocks due to their long-term vision and commitment.

Although they are important actors in their communities, especially for non-formal health services such as healthy ageing initiatives, NGOs and social cooperatives are often overlooked by public authorities for several reasons: they use volunteers as labour, many rely on public grants, and for many of them it is difficult to quantify their economic contribution (Quarter et al., 2003). In order to ensure both short-term (e.g. a healthier ageing population, therefore reduced healthcare costs) and long-term (e.g. a more efficient prevention-oriented health system versus a more expensive intervention-oriented one) benefits against demographic challenges, LRAs should involve such ‘third sector’ actors in developing new ways of coping with ageing. Initiatives exist, often as pilot projects, but very often their results fail to be implemented into policy. An example of pilot project for healthy ageing is Delfzijl in the Netherlands, described in Text Box 4 below.

Text Box 4. Active ageing as driver for social inclusion in Delfzijl, the Netherlands

Delfzijl, in the Northern Netherlands, is facing several socio-economic challenges. First, there is an over-representation of citizens with low education levels and low income. Second, the share of persons above 64 years old is increasing due to depopulation. The younger population migrates to larger urban centres in the region. Existing research has shown that persons that are older than 64 years old and with a low education level and income are more prone to isolation, loneliness and depression.

DELFGOUD is an initiative in Delfzijl that encourages seniors to change their lifestyle and to engage in social activities. The initiative combines active ageing with social inclusion by engaging not only seniors, but also a wider range of citizens. As such, the initiative improves social interaction in the neighbourhood.

DELFGOUD is a pilot action, which is expected to inform policies to be implemented by the region. It was initiated in cooperation between the University of Applied Sciences in Groningen, the municipality of Delfzijl, the neighbourhood association, regional public health services and providers of fitness activities. The objective of involved researchers is to assess the relation between active ageing and social inclusion.

The initiative included an extensive awareness-raising campaign. The initiative had 240 participants, out of a target group of 1,300 persons in the area with an age of 65 or older. Despite active promotion, the involvement of other persons from the neighbourhood in the initiative was limited. The researchers did not manage to raise interest among other persons to voluntarily join fitness activities with senior citizens.

Preliminary quantitative results of this pilot action show limited direct relations between active ageing and social inclusion on the short term. However, qualitative results confirm a positive relation between active ageing and social inclusion. The social activities and gym classes for elderly people decreased their perception of isolation. It is expected that measurable impacts will be observable in a medium- to long-term perspective.

This conviction has prompted participating organisations to implement the approach also in other municipalities in the region and encourage social inclusion of elderly by active ageing.

Sources: DELFGOUD (2016); Bielderman et al. (2014).

In addition to healthy ageing, **lifelong learning** could be an important tool for risk prevention and for promoting activity at later life stages. While many

consider health as the main factor in determining work ability as we get older, Barnay and Debrand (2006) show that it does not explain cross-country differences in male employment rates, which seem to result from other factors such as cognitive abilities. It was also shown that the higher educated people are, the longer they keep their cognitive abilities (Mazzonna and Peracchi, 2009). In addition, the longer people stay professionally and physically active, the higher cognitive retention rate they have (Adam et al., 2007). This suggests that LRAs should invest not only in formal education initiatives, but also in non-formal learning opportunities such as volunteering and experience exchange networks for their citizens to be more active, learn more and feel more integrated in their communities. In the long run, this will allow these citizens to work longer and, once they retire, to volunteer more and stay active, as explained in section 3.3 on volunteering.

Private actors, as well as social economy ones, are also increasingly stepping in to provide health services. Though there are strong economic arguments for why private insurance companies are not the best fit for this sector (given their interests for profit – see Krugman (2009) and especially Buiter (2009))¹⁷, there are some private actors operating as healthcare providers in the EU, or in partnership with public authorities (public private partnerships). The Expert Panel on Effective Ways of Investing in Health (2014) states that PPPs provide a large share of services in the UK (up to 40% of total health sector investment) and Portugal, but for the other Member States they represent around 1% of investment. The report also concludes that it is very difficult to access data behind Public-Private Partnership (PPP) investments. Nevertheless, according to it, the financial crisis dramatically reduced the number and size of projects within most PPPs, given liquidity constraints.

Patients are largely indifferent, or unaware, of the ownership structure of their hospital, and their satisfaction rates do not seem to depend on this. In fact, ownership does not determine efficiency in service provision – emphasis should be placed rather on financing mechanisms and competent management. (Expert Panel on Effective Ways of Investing in Health, 2014)

In conclusion, LRAs have the competence to have an important say in the delivery and funding of local and regional health services, as well as in changing the mentality from treatment to prevention and from traditional practices to innovations such as telemedicine. The most efficient intervention

¹⁷ In terms of alternative health insurance schemes, an interesting debate could be spurred by the citizens' insurance scheme (Lauterbach) proposal introduced in 2003 in Germany, which might make a comeback. This proposal, contrary to the flat-rate health premiums one, would cover the entire population, with an income-related contribution rate on all types of income (rather than the flat rate contribution independent from income as proposed under the flat-rate health premium proposal). (Weinbrenner and Busse, 2003).

will depend on the local context elements (e.g. shortage/surplus of health professionals, availability of care facilities, local private actor involvement in care, restrictions on LRAs competences in national legislation, etc.) and its demographic forecast. It is important to note, as Lloyd and Wait (2006) do, that consistency must be ensured between health, social and other policies in order for a region to benefit from innovative practices in the long-run. In the next sections, the interplay between health, education and labour policies, and the need for their alignment, will become more evident.

2.3 Education/Lifelong learning

The impact of ageing on an economy will depend a lot on education levels: people with a university education will work longer, have more savings and be more productive, including after the age of 65. The shrinking of its labour force will put a downturn pressure on economies and could induce long-term stagnation, unless there are significant gains in productivity, coupled with focused approaches to education and training. The Commission's 2015 Ageing Report (European Commission, 2015a) suggests that labour productivity is expected to be the sole source of potential output growth until 2060. The OECD (2015) finds robust productivity growth in 'frontier' sectors (e.g. manufacturing) in the 21st century, and a rising productivity growth gap between frontier and non-frontier sectors (e.g. services). It suggests allocating scarce resources (e.g. investments, human capital) to the most productive firms. Otherwise, combined with ageing, decreases in productivity may destabilise social protection systems, intensify tensions on currencies, and render high levels of youth unemployment semi-permanent. Combined, these effects could undermine social cohesion. (European Strategy and Policy Analysis System, 2015).

LRAs can contribute to mitigate these effects through education policies targeting sustainable and resilient communities, which are adapted to the competencies of the local population and the needs of companies. As suggested by the OECD (2015), a key policy area to sustain productivity growth is to reduce resource misallocation, particularly skill mismatches. This section reviews solutions that have been implemented in these respects. This will lead to an assessment of how LRAs can contribute to regulate brain drain and brain gain processes across Europe. A small example of such local initiatives, in this case one that promotes lifelong learning among seniors, is shown in Text Box 5 below.

Text Box 5. Senior Plus: Keeping the elderly healthy and active, Austria-Czech Republic

The level of education has a high impact on the economy, especially in an ageing society. Citizens with high education levels tend to remain economically active longer and continue to actively contribute to the life of their community at an older age than the average population. This case study illustrates how local and regional authorities (LRAs) can keep their elderly population active by showing an example in the cross-border region between Austria (Lower Austria) and the Czech Republic (Vysočina Region). The project was funded by the ERDF in the programming period 2007-2013 and lasted over the period 07/2012 to 09/2014.

Lower Austria is home to 1.6 million people. 25% of its population is over 60 years old and nearly 50% (49.38%) over 45 years old. For this reason many local services aim to encourage the active participation of seniors in society for as long as possible. This implies that stereotypes on seniors must be challenged, so as to make sure that they are not marginalised.

The project had two main objectives: The first was to directly impact senior citizens' lifelong learning experience by organising and promoting cultural activities in the cross border region. In the framework of the Active Plus programme, lectures, seminars and workshops designed exclusively for elderly were organised at research facilities in Lower Austria and Vysočina region. Throughout the project's implementation, a concept of an active senior policy for the Vysočina Region was developed.

The second aim was to assist social services for seniors in exchanging experiences, promoting good practices and partaking in public relations events. Furthermore, an exchange platform was installed which focused on the volunteering potential of senior citizens.

This project was highly successful; the project developer received positive feedback especially from retirees and persons close to retirement. The strong demand in learning initiatives for citizens aged 55+ encouraged stakeholders to initiate two follow-up actions: The Senior Academy Jihlava and the "Senior University" at the University of Applied Sciences IMC FH Krems (Austria). These specific multi-semester courses on Economy, Health and Life Sciences offer the elderly population the opportunity to receive education even without any requirement with regards to previous educational achievements.

These measures and actions help senior citizens to enhance their quality of life and to contribute more actively to their local communities. One of the important lessons learnt in this process is that there is a need for an active senior policy adapted to the needs of the older population, which promotes projects motivating and enabling active participation in society.

Sources: (European Commission, 2015c); (European Commission, 2014b); Aktivplus (2016); SeniorInnenUni (2016).

According to a study by Cambridge econometrics (2013), education accounts for 6.75% of total EU27 employment, increasing from 14.9 million to 15.6 million employees between 2006 and 2010, of which 4.1 million work part-time. The same report points to a productivity increase of 6% and a value-added increase of about 12% in this sector during the same period. Apart from its notable social role, these statistics attest to education's important economic and job-providing role as SGI.

As shown in Table 3 below, apart from notable exceptions such as the Netherlands and partly Finland, LRAs have limited involvement in the financing, management or curriculum of primary and secondary schools. Nevertheless, they are instrumental to retaining or attracting highly educated people (brain-gain), or, the alternative, deterring them from moving out (brain-drain). In the long-run, retaining/attracting talent locally can trigger positive spillovers due to knowledge economy, place-based innovation clusters, higher civil society engagement and better quality SGI such as healthcare, culture or education.

Table 3. Levels of school autonomy in primary and general (lower and upper) secondary education

	FINANCING					MANAGEMENT				CURRICULUM		
	Public funds for		External funding via			Select school head	Teachers			Common curriculum	Choose teaching method	Choose books
	Capital	Operations	Loans	Fundraising	Lease premises		Hire	Fire	Set tasks			
AT	NONE	LTD	FULL	NONE	LTD	NONE	NONE	NONE	FULL	NONE	FULL	FULL
BE (de)	FULL	FULL	FULL	NONE/FULL	FULL	NONE/FULL	LTD	LTD	FULL	NONE	FULL	FULL
BE (fr) ¹⁸	FULL	FULL	FULL	NONE/FULL	FULL	NONE/LTD	LTD	LTD	FULL	NONE	FULL	FULL
BE (nl)	FULL	FULL	FULL	FULL	FULL	FULL	FULL	LTD	FULL	NONE	FULL	FULL
BG	NONE	NONE	FULL	NONE	LTD	NONE	FULL	FULL	NONE	NONE	FULL	FULL
CY	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	LTD	NONE
CZ	NONE	LTD	FULL	NONE	FULL	NONE	FULL	FULL	FULL	NONE	FULL	FULL
DE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	FULL	FULL
DK	LA	FULL	NONE	NONE	NONE	LTD	LTD	NONE	FULL	NONE	FULL	FULL
EE	NONE	FULL	FULL	NONE	FULL	NONE	FULL	FULL	FULL	NONE	FULL	LTD
EL	NONE	FULL	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	LTD	NONE
ES	LTD	FULL	FULL	N/A	LTD	LTD	NONE	NONE	LTD	NONE	FULL	FULL
FI	LA	LA	LA	NONE	NONE	NONE	LA	LA	LA	NONE	FULL	LA
FR	NONE	LTD	FULL	NONE	FULL	NONE	NONE	NONE	NONE	NONE	LTD	FULL
HU	LTD	LTD	FULL	NONE	LTD	NONE	LTD	LTD	LTD	NONE	FULL	LTD
IE	LTD	FULL	FULL	LTD	FULL	FULL	FULL	FULL	FULL	NONE	FULL	FULL
IT	NONE	FULL	FULL	FULL	LA	NONE	NONE	NONE	NONE	NONE	FULL	FULL
LT	LTD	LTD	FULL	NONE	FULL	NONE	FULL	FULL	FULL	NONE	FULL	LTD
LU	NONE	LTD	FULL	NONE	FULL	NONE	LTD	NONE	LTD	NONE	FULL	LTD
LV	FULL	FULL	FULL	NONE	FULL	NONE	FULL	FULL	FULL	NONE	FULL	LTD
MT	LTD	FULL	FULL	N/A	FULL	NONE	NONE	NONE	NONE	NONE	FULL	NONE
NL	LA	LA	LA	LA	LA	LA	LA	LA	LA	NONE	FULL	FULL
PL	LTD	FULL	LTD	NONE	LTD	LTD	FULL	FULL	LTD	NONE	FULL	LTD

¹⁸ A distinction is made between schools where the Community is responsible, and public/private grant-aided schools.

	FINANCING					MANAGEMENT				CURRICULUM		
	Public funds for		External funding via			Select school head	Teachers			Common curriculum	Choose teaching method	Choose books
	Capital	Operations	Loans	Fundraising	Lease premises		Hire	Fire	Set tasks			
PT	NONE	FULL	FULL	NONE	FULL	LTD	NONE	NONE	LTD	NONE	FULL	LTD
RO	LTD	LTD	LTD	NONE	LTD	NONE	NONE	FULL	FULL	NONE	FULL	LTD
SE	FULL	FULL	LTD	NONE	LTD	NONE	FULL	FULL	FULL	NONE	FULL	FULL
SI	LTD	FULL	FULL	LTD	LTD	FULL	LTD	FULL	FULL	NONE	FULL	LTD
SK	NONE	LTD	FULL	NONE	FULL	LTD	FULL	FULL	FULL	NONE	FULL	LTD
UK (en/wl)	LTD	FULL	FULL	LTD	FULL	FULL	FULL	FULL	LTD	NONE	FULL	FULL
UK (nir)	NONE	FULL	FULL	LTD	FULL	FULL	FULL	FULL	LTD	NONE	FULL	FULL
UK (sct)	NONE	FULL	FULL	NONE	FULL	NONE	LTD	NONE	FULL	LTD	FULL	FULL

Source: Education, Audiovisual and Culture Executive Agency (2012).

FULL = full school autonomy; LTD = limited school autonomy; NONE = no school autonomy; LA = local authority can decide/intervene; N/A = not available.

From Table 3 above, Dutch LRAs can intervene in all areas of financing and management of schools. In Finland, LRAs also have a big say in these areas, however in other countries, LRAs' authority is very limited or non-existent. School autonomy for self-managing their finances, staff and curricula is also very different: while almost fully autonomous in financing and staff in Flanders (Belgium), Ireland or Latvia, the Cypriot and Greek schools have no autonomy. Autonomous schools can naturally become active cooperation partners for local and regional authorities, while centrally controlled ones are perceived as the extended arm of national authorities. Here again, the diversity of governance models must be emphasized. In some cases (e.g. France) school buildings and infrastructure can be a responsibility of LRAs, while the operation of pedagogical activities is centrally managed. This places the school in an intermediate position between authorities at different levels.

Concerning **brain gain**, lifelong learning and continuous professional development is a key way through which high-skilled professionals can be retained locally. Baumann et al. (2006) recommend that for retaining nursing workforce, a big focus should be put on professional education programmes to upgrade the skills of nurses and their aid, also suggesting allowances for continuing education and professional development. Their study emphasises the role of national actors for developing retention policies, but also recommends complementary policy frameworks at regional level, along with the establishment and recognition of bodies representing employees in the sector.

On a similar line with Baumann et al. (2006), Newland (2011) suggests that LRAs can play an important role in retention and local integration of migrant workers, even in countries (like the United States) where they have no formal role. She cites the example of the Spanish town of Cartaya, which developed an EU co-funded project to involve employers' associations, trade unions, NGOs and local government agencies to manage the flow of agricultural workers from Morocco. This project improved recruitment and local integration, provided additional training to migrant workers and avoided the worsening of working conditions in agriculture. Newland (2011) recommends cooperation between various governmental actors like development agencies, justice/home affairs/security agencies and local actors in managing immigration flows and better integrate migrants.

To counter **brain drain**, Cameron (2011) evaluates the drivers of regional skill shortages in Australia and the country's regional skilled migration policies to bridge local needs for skilled personnel. Drivers of skill shortages include under-investment in skills development and particular weaknesses in the training system (Richardson, 2007). Education and training, along with career development were also identified by the Bureau of Transport and Regional

Economies as some of the root causes of skills shortages (Bureau of Transport and Regional Economics, 2006). Cameron (2011) points to nationally driven initiatives, like the Australian National Skills Shortages Strategy, which addresses regional current and future skill needs by involving regional stakeholders like industry, education providers and the broader community, to profile their existing industries and foresee their future skills and training needs.

Hugo (2004) refers to an ‘age of migration’ in which massive numbers of migrants will move across borders for work and non-work related purposes. He identifies as global drivers the internationalisation of labour markets, the demographic discrepancies between developed and developing nations, the universalization of education, the reduced travel costs and others. This also implies telework, as suggested in the following section. Indeed, the highest skilled workers are usually the most mobile, as well as those bringing most value-added.

Mendoza (2015), studying brain drain out of the Philippines, suggests that, for building and retaining domestic human capital, policymakers could (a) work more closely with local employers to ensure a match between domestic education and business needs, and (b) support and build domestic industries focused on the existing skills and trainings of domestic workers. These solutions are similar to those pointed out by Bureau of Transport and Regional Economics (2006), in which lifelong learning and training are a major driver of skill retention. As indicated in previous sources, LRAs should complement national skill retention policies with additional efforts for encouraging the arrival and retention of skilled workers. Such solutions could include:

- a) Better mutual recognition agreements for qualifications between authorities (Cameron, 2011).
- b) Sharing labour market information to make quicker and better responses to skill shortages (Cameron, 2011).
- c) Provide allowances for support including housing subsidies, extender childcare, flexible working times, etc. (Baumann et al., 2006).
- d) Greater flexibility in apprenticeships (Cameron, 2011) (Baumann et al., 2006) (Migrant Employment and Training Taskforce, 2005).
- e) Greater access to local employment information pre-arrival (Migrant Employment and Training Taskforce, 2005).

- f) Cooperation with origin-country governments from where migrants arrive/could arrive (Newland, 2011).

In **lifelong learning** too, LRAs can play an important role in promoting continuous education for the elderly. Such initiatives encourage civic participation, social integration and exchanges of experiences across generations. NGOs and volunteer-based organisations play a big role in these movements. Oftentimes, as it is the case in Austria, Hungary, Germany and many other countries, civil society actors work hand in hand with LRAs to promote a culture of lifelong learning among both their young and elderly citizens. Such types of initiatives include:

- a) In Styria (Austria), a mentoring programme for about 20 socially-underprivileged youngsters invites about 20 veteran executives to share their knowledge about soft skills and social competences.
- b) The municipality of Vienna (Austria) supports ‘Terra’, a counseling service offered by Social Global for helping elderly immigrants integrate.
- c) In Lower Saxony (Germany), a non-for profit initiative called ‘50plus Entrepreneurs’ provides advice to those over 50 years old with professional experience and who would like to be self-employed, thus helping them face poverty as they grow older.

In conclusion, as emphasised in this sub-section, there are a number of ways through which LRAs could play their part in ensuring a beneficial demographic change process in their area. While Table 3 showed that LRAs could have only limited involvement in running schools, non-formal educational initiatives are important tools of intervention to match human capital with labour demands according to OECD (2015) recommendations. Practical examples such as the Senior Plus programme in Vienna, as described in Text Box 5 spurred the development of further initiatives like the Senior Academy in Jilhava, and the Senior University in Krems, both focused on providing courses to the elderly.

Migration is also a leverage which LRAs can take advantage of. The ‘age of migration’ foreseen by Hugo (2004) could affect LRAs in two ways: through brain gain or through brain drain. This is particularly relevant for the very high-skilled workers, who are the most mobile. As Mendoza (2015) suggests, LRAs should cooperate with local employers to ensure skill match, as well as to use existing human capital to attract or support domestic industries that would benefit from it. This requires LRAs to identify their regional needs, seek ways how to address them and implement the solutions through careful governance arrangements and incentive-setting – something Mazzucato and Penna (2015)

calls ‘public entrepreneurship’. This also includes efforts to slowly change mentalities towards the promotion of lifelong learning measures through initiatives like those in Austria and Germany presented above. Such measures would ideally be closely linked to labour market policies, described in the following sub-section, to ensure complementarities and increased impact.

2.4 Labour market policies

In order to combat the challenges linked to pension reform, governments have sought to raise the pensionable age, to progressively reduce the replacement rates for given retirement ages, to push for supplementary pensions to ensure adequacy of retirement income, and also to encourage individuals to work longer to help offset the reduction in pensions (active ageing). A major challenge will be to continue addressing the gender gap in employment rates as well as in earnings and pensions for women.

The EU has committed to supporting active ageing and the increased participation of the elderly in the labour market as well as better job opportunities and working conditions for elderly workers in Europe. During the 2012 European Year for Active Ageing and Solidarity between Generations, it was suggested that the longer and healthier lives of Europe’s elderly citizens could generate economic benefits for society as a whole through extended working lives or volunteering. Reaching the Europe 2020 target of 75 percent employment rate across the European Union for the population aged 20-64 partly hinges on such strategies.

Targeted measures aimed at reducing poverty rates for specific groups, particularly elderly women, could reduce income inequality owing to age. Policies to increase the employment rates of women in particular could help raise the overall employment rate and reduce pressure on the old-age dependency ratio while reducing risks of poverty in old age for this group (Guerin, 2013). Employment policies in general are a good leverage for reducing demographic pressures on social security systems in the future. However, LRAs have limited competences in this field, as shown in Table 4 below. While legislation in the field is almost always a national matter, LRAs have important competences in the financing and especially the delivery of such services.

Table 4. Division of responsibility for legislating, financing and delivering employment services for the elderly

EMPLOYMENT SERVICES			
	Legislation	Financing	Delivery
AT	NAT	NAT, EU	REG
BE	REG	REG	NAT
CZ	NAT	NAT, private	NAT
DK	NAT	LOC	LOC
EE	NAT	NAT, EU	NAT
FI	NAT	NAT, LOC	NAT, LOC
FR	NAT	NAT, REG, EU	NAT
DE	NAT	NAT	LOC
GR	NAT	NAT, EU	NAT, REG
HU	NAT	NAT (<i>mainly</i>), LOC, private	NAT
IE	NAT	NAT	NAT, LOC
IT	NAT	NAT, EU	NAT, REG
LV	NAT	NAT	NAT
NL	NAT	NAT	LOC, other
PL	NAT	NAT	LOC
PT			
RO	NAT	NAT, private	NAT, REG
SK	NAT	NAT, private	NAT
SI	NAT	NAT, EU	NAT
ES	NAT, REG	NAT, EU	REG
SE	NAT	NAT	NAT
UK	NAT	NAT	NAT

Source: Polacek et al., 2011.

NAT = Federal or national; REG = regional, Lander or county-level; LOC = local or municipal.

The European Commission (European Commission, 2014a) recommends involving all stakeholders, in particular employers in implementing policies for using the ageing workforce's potential. The same source shows that only 1/3 of employers support legal measures to retain workers in employment by cutting back early retirement programmes and raising retirement ages. According to Connan et al. (2011), raising retirement age beyond 65 can be acceptable for employers, but they still show preferences to make older workers retire early when faced with the necessity of downsizing.

The present section explores LRAs' initiatives to address these labour market challenges in an integrated way, taking into account current and foreseeable demographic changes.

To begin with, the argument according to which working longer reduces employment opportunities for younger generations was disproved by studies like OECD (2011), which shows that higher employment rates of those up to 24 years of age lead to higher rates for those above 50 as well. This makes it economically feasible for LRAs to promote labour market participation for the elderly. This should begin with first understanding the specific labour needs of the target group.

The EU co-funded SPReW project (Vendramin, 2008) indicates that workers above 50 are at a higher risk of job loss during economic slowdowns and restructuring due to deskilling and their potential alternative social security benefits like pre-retirement benefits. And while the younger generation expects more autonomy and opportunities for self-development in their career, the older employees focus on (a) balancing work and family life, on (b) lifelong learning measures and on (c) improving working conditions. (Vendramin, 2008)¹⁹.

(a) Work-life balance

The European Commission (2014a) suggests that work-life balance allows both a higher labour market participation and higher fertility rates. Gender norms and policies aimed at promoting gender equality are crucial in ensuring work-life balance, as parents need to spend a significant amount of time with their children irrespective of other work and household obligations, and therefore need to be able to take this time off work, irrespective of their gender. This is especially important given the growth of the share of dual-earner couples. Knijn (2012) shows that countries with better work-life balance regimes (mainly Nordic countries) see higher women's employment and fertility rates. The European Commission (2014a) recommends policymaker to pay specific attention to the importance of policies promoting labour mobility, labour market flexibility, self-employment and temporary work arrangements, as they are crucial for young adults to start autonomous households.

Time policies, or policies meant to integrate domestic and family time with work and urban time, seek to address precisely this balance, and provide input to LRAs on how best to achieve it. Torns et al. (2008) provide a good overview on the emergence and the application of time policies in Europe. Such policies derive from critics in the '80s on the blindness of welfare state policies to gender – at that time, conventional labour analysis was unable to conceive that there was another time besides working time that was needed to live. The pioneering efforts to implement such initiatives come from Italy, notably from Laura Balbo (1987) who, fuelled by feminist movements, published an essay calling to

¹⁹ Also the conclusion of the Recwowe paper at <http://www.recwowe.eu/>

prioritise ‘care work time’, the time for the reproduction of life and time for caring, which is mainly taken by women. An early Italian proposal in 1990, which never saw its passing into law, aimed at regulating time through three pillars (so-called ‘laws of time’):

- a) Life course policies (mixing productive and reproductive time, while moving away from the male-dominated mentality of a study-work-retire lifestyle).
- b) Working day schedule (reducing paid working hours and setting a more flexible schedule for the working day).
- c) Urban time (regulating activities and services affecting the daily lives of citizens, especially women, such as business hours, transports, shops, etc).

Torns et al. (2008) assess the success of each type of time policies (a, b or c as described above). Life course policies are dependent on defining a more flexible working day schedule, but this seems not to work in practice. The three notable examples of policy in this sense are the 35-hour work week in France, the ‘6+6’ Finnish model where the State encouraged 6-hour daily shifts to allow more time for domestic activities, or the ‘Work&Life Balance’ project in the United Kingdom, where the State stimulated work-life balance initiatives through information and policies for maternity leave, the right to ask for flexible hours, the right to unpaid leave and loans to finance childcare. Torns et al. (2008) show that these did not work in practice, since their assumption that people would prefer working less daily hours to save time for other activities proved to be false. In fact, it was shown that people actually prefer working longer days as long as they accumulate full days of leisure time (Rigby, 2004).

With the failure of working day schedule policies, other work-life policies focused instead of harmonising working time with other times, without considering a reduction in working hours, but merely controlling exceptional periods such as parental leave. Urban time policies relate to this, and are the only time policies (of the three types described above) which worked well in practice. The impetus comes, once more, from Italy, where the Italian Parliament introduced a law in 1990 devolving the reorganisation of city schedules to mayors. This enabled the mayor of Modena to introduce an initiative to bring more flexibility in nursery opening hours. This proved to be a big success, especially for employed women, and similar practices were replicated elsewhere in Italy and even abroad. The French government tried to replicate the Italian experience, and Hervé (2001) report suggested the introduction of ‘time offices’ in cities with over 20,000 inhabitants. In Rennes, such a bureau was created in 2000, promoting activities such as the creation of

local services for childcare emergencies, introducing music concerts along with affordable catering services on bank holidays or Sundays, and so forth.

A study on Barcelona (Institut d'Estudis Regionals i Metropolitans de Barcelona, 2008) assessed the citizens' use of their time over the past 20 years, concluding that "employment is a determining condition in time management of employed people, up to the point that it often becomes the main area that structures their daily time." In this case, policies to allow part-time work are important in reconciling the rigid working hours with domestic and leisure activities, a reconciliation needed by 40% of the participants in the study who had problems balancing these times.

There is also evidence of a **'care' deficit** (Drobnic and Guillén, 2011; Pfau-Effinger and Rostgaard, 2011) represented by a decreasing supply of care services on the market and at home (due to declining fertility rates, migration and increased women employment) but an increasing demand for it, especially for the elderly and disabled. OECD (2011) suggests that greater labour flexibility is needed to allow employees to care for their dependable family members when they need to.

(b) Teleworking

Teleworking can be a useful lever to maintain population in less economically dynamic areas. In this respect, it is important to consider that different forms of teleworking co-exist, and that each has specific requirements in terms of accessibility, social environment and service offer. Strategies seeking to use teleworking as a lever of development must consider emerging trends, e.g. the rapid growth in the number of independent professionals, as well as differences between European countries when it comes to flexible working arrangements.

In addition, the range of teleworking options keeps expanding, as companies adopt more flexible working arrangements and the number of independent professionals (or 'iPros') grows: from 2004 to 2013, this number has increased by 45% in the European Union, from 6.2 to 9 million (Leighton and Brown 2013). A significant proportion of these workers have a relatively high degree of freedom when deciding where to carry out their activities. However, many require access to broadband internet and reasonable transport accessibility (particularly, ease of access to an airport) to organise face-to-face meetings with clients and business partners.

Other forms of teleworking concern employees who work from home regularly or occasionally. Among countries with significant mountain areas, such working arrangements are common (23-25% of employees) in Slovenia, Austria,

Germany and France, but particularly low (7-10%) in others (Bulgaria, Italy, Romania) (Messenger and Gschwind, 2015). They make it possible to accept a position even if the commuting distance is too long to travel between one's home and workplace on a daily basis. This creates new opportunities for LRAs with intermediate levels of accessibility to urban areas (e.g. between 1 and 2 hours from an urban centre). Differences between European countries when it comes to the adoption of such flexible working arrangements suggest a potential for exchanges of good practice.

(c) Improving working conditions

Job quality is an important indication of staying longer in employment. Quality, measured through job security and wage setting by Chung and Van Oorschot (2010), is a major predictor of voluntary or involuntary early retirement, since the social net offered by the pension system can become more attractive than an insecure job or the prospect of looking for another job at a late stage in one's career. This is also confirmed by OECD (2011), which shows that the higher the potential pension benefits, the more likely it is for individuals to prefer retirement.

Early retirement is also predicted by job satisfaction, especially for females, (Schnalzenberger et al., 2014) as it can lead to workers being insufficiently challenged and later on depressed and in worse health shape (Börsch-Supan et al., 2008). In a survey (Schröder, 2011), a stark difference is remarked between job satisfaction in northern and southern Europe, with employees in southern Member States being most critical about their jobs (over 60% of respondents in Spain and Poland and over 50% in Greece and Italy wanted to retire as soon as possible). Here again, gender equality plays an important role, as women are still disadvantaged on the labour market through lower wages for the same work (Fernandes et al., 2011). This implies lower pensions for women, especially given that in some countries women have a lower retirement age.

From an employer perspective, labour force ageing might seem like a non-urgent issue that has to be addressed sometime in the future (European Commission, 2014a). And while employers and employees believe that working longer may become necessary in the future, they expect it less in their organisations. In addition, employers perceive older workers as lacking new technology skills, having lower stamina and being less productive (Connen et al., 2011). In their eyes, this would lead to higher labour costs for minor productivity increases. Nevertheless, the same study (Connen et al., 2011) also illustrates the benefits of having older workers, such as being more loyal and reliable and having greater social and management skills. In general, however,

older workers do not seem as interesting for employers as women or prime-age workers.

To conclude this sub-section, employers' views are similar to those of the citizens in the 2012 Eurobarometer focused on active ageing (European Commission, 2012c). Public authorities are perceived to be the main drivers of implementing policies directed at ageing, since many such tools are beyond the influence of employers. As specified by the European Commission (2014a), employers think that labour policies aimed at ageing should aim to:

- a) Make better use of existing staff,
- b) Increase workforce through migration or family policy, and
- c) Extend working lives.

Only a third of employers support raising legal retirement ages or cutting back of early retirement programmes. The preferred policy option is to create incentives to combine work and retirement, in addition to policies for lifelong learning and the introduction of wage subsidies for older workers.

To sum up this section, labour market policies can help employees be happier at their jobs, stay longer in employment and be more productive. While labour legislation, as seen in Table 4 for employment services, is mainly a national competence, LRAs could leverage their power in setting up a more pleasant environment for employees, specifically concerning their work-life balance and their off-work activities. Torns et al. (2008) illustrate how such time policies could work, by describing how changing service timetables in urban spaces improve the living experience of citizens. This is also beneficial for the future, as it improves fertility rates, thus easing demographic pressures (Knijn, 2012). In contrast, bad working conditions can increase early retirement rates (Schnalzenberger et al., 2014) and strain public finances (Centre for Strategy and Evaluation Services, 2010). To profit from technological changes, LRAs should also pay attention to the opportunities presented by teleworking as ways to prevent brain drain, especially from remote areas. However, sustainable policies for addressing brain drain, work-life balances and employee life quality requires that LRAs combine their labour market efforts with initiatives in health, education and in other SGI.

3 Opportunities and perspectives for local economic development

This chapter explores the economic opportunities and local and regional development perspectives that may be linked to demographic change. We discuss challenges, opportunities and solutions for fiscal sustainability through silver economy (section 3.1), volunteering (section 4.2), residential economy (section 4.3) and remittances (section 3.4). Finally, we seek to describe how self-perception and branding may function as instruments to influence demographic development (section 3.5).

3.1 Silver economy

Over the last decade, in response to ageing demographics, the silver economy has emerged as a multi-faceted concept interlinking various social and economic dimensions to holistically examine the ageing trends and the associated opportunities. In fact, ageing creates new economic opportunities as demonstrated by the spread of new technologies, products and services which are being designed for, and sometimes by, the senior population (OECD, 2012).

In parallel, given its particular relevance in the EU, the concept has also significantly started gathering momentum in 2012 (European Year for Active Ageing and Solidarity between Generations) and, particularly in 2015, with the European Commission's first paper on the topic.

The European Commission (2015a) defines silver economy as economic opportunities brought by expenditure related to population ageing and the needs of citizens over the age of 50. The expenditure considered includes both public and private spending. With regards to need patterns, it is useful to differentiate between three groups of senior citizens: active, fragile and dependant seniors. Even though this group constitutes a large part of the general consumer economy, there are some notable differences in spending priorities and patterns.

According to Bank of America Meryl Lynch (2014), European consumers own more than €3500 billion and by 2020 the private spending power of the elderly generation will reach USD15 trillion globally according to the Euromonitor report *Boomers as Consumers* (Euromonitor, 2012). Today the silver economy is estimated at USD 7 trillion per year in the US, which makes it the 3rd largest economy in the world.

Sectors with high growth and job-potential are the healthcare industry, services and technology that facilitate independence and ageing at home, and online products and services.

Text Box 6. Silver economy in the health sector – the case of medical start-ups, Italy

In the last years, Italy has been subjected to a rapid growth in the elderly population. In 2015, the 44% of the population was older than 50 years and the 20% was even older than 65 years. The share of the population aged 65 years and over within the last decade (2004-2014) was increased of 2.2 percentage points.

One of the immediate consequences of ageing population is an increase in the health expenditure. This in Italy increased from 7.9% of the GDP in 2000 to the 9.2% in 2012.

This opportunity seems to be exploited by the medical device market. The Italian medical device market is the third largest in Europe (after Germany and France), with a market share of 11% of the total European production. The total market in 2015 was estimated in more than EUR 8,200 million, with more than 3,000 companies of which 70% is concentrated in five regions: Lombardy, Emilia Romagna, Lazio, Veneto and Tuscany. Only 37% of them have research and production centres in the country. “Made in Italy” biomedical has an excellent international reputation, shown by important acquisitions of Italian companies made by multinationals.

According to Assobiomedica in 2014, Italy boasted 287 start-ups working on diagnostic tools or medical therapy. The creation of start-ups has increased in the last five years, with the 10% of start-ups created in the last two years (from 2013) and over 33% less than three years old. The most of the reviewed start-ups are universities’ spin offs (55%) or are the results of private initiatives (4%), and a little more than 41% has come out of an incubator inside technological parks (although in Piedmont the percentage rises close to 90%).

The start-ups are mostly located in northern and central Italy: Lombardy, Emilia Romagna, Tuscany and Piedmont host 61% of start-ups. A significant example is the “Mirandolese” district, near the town of Mirandola, in Emilia Romagna region. This district is the first in Europe and the second in the world, with over 100 firms in the medical device sector. With its 5.000 of operators, in 2007 its turnover was about 850 millions of euros, (+5.4% relative to 2006) and the export was 350 million (+7.9% relative to 2006).

The district structure includes big multinational corporations (as Gambro, Bellco, B. Braun Avitum, Covidien, Fresenius and Sorin), medium enterprises, and a network of satellite activities.

The reason of the Mirandolese district's success resides in concurrent factors, as the quality of human resources and the presence of local expertise, the existence of technically specialized satellite activities, the flow of ideas and information that support innovation. In addition, the presence of multinational corporations helps the district to participate in global competition.

The Emilia Romagna Region has seized the opportunity given by the Mirandolese district. To facilitate the access to public financing, it has not imposed a formal definition of the district, leaving to the local actors the possibility to apply as a district system and to negotiate the projects with the regional administration.

Nevertheless, further efforts are required to the LRAs to overcome some of the criticalities of the district. For example, the infrastructures (granted by regional and local authorities, according to Italian legislation) are not adequate to support an optimal development of the district. In addition, local (as the chambers of commerce) and regional (as regional internationalisation offices) institutions are not able to offer decisive services for the internationalisation of small enterprises.

Sources: Assobiomedica (2016); EMERGO (2015); Export.Gov (2015); Eurostat (2016); ISTAT (2016); Leone (2015); OECD (2015); Osservatorio Nazionale Distretti Italiani (2016).

About 90% of seniors want to stay in their own home when they grow older. This makes products and services supporting ageing at home and independent living an important sector of the silver economy. But also online products and services have a high potential. Already 85% of those aged 50-65 and 59% of population over 65 are using the internet. The generation aged 56-66 spends the most of all generations. (European Commission, 2015b).

The specific needs of the elderly, of course, are not only reflected in their demand for elderly care, healthcare and related products, but also in their daily demand for other products and services. These are e.g. the leisure industry, educational training providers, cultural institutions, sports and health clubs, tourism, wellness, the food and nutrition industry and all offers related to housing. The needs and demand of the elderly differ from the demand of young people for these products and services by specific requirements for their design, e.g. related to the accessibility of services and their social and communicative value. (Scharfenorth, 2013).

With an ageing population, the number of consumers will increase relative to the number of producers: the 65+ population as a percentage of the working-age population (15-64 year-olds) will increase from 26% in 2010 to 53% in 2060 (European Commission, 2015a). Consumer spending in the 60+ age group rose 50% faster than that in the >30 age group over the past two decades (European Commission, 2015a), with sectors like cosmetics, tourism, health and culture standing to gain from this inflow of consumers. These opportunities were noted by the European Council (Council of the European Union, 2007) and the European Commission (European Commission, 2014a).

Text Box 7. Ristijärvi Seniorpolis: turning ageing into an asset, Finland

Ristijärvi, a small municipality of 1,500 inhabitants in the sparsely populated Finnish region of Kainuu, has tried to use its ageing population as a development asset. It has set up the Seniorpolis expertise centre, which develops business operations that promote well-being and lifestyle opportunities for senior citizens, focusing on SGI such as housing, learning, education and care. The main innovation of Seniorpolis is that instead of seeing senior citizens as a threat, one tries to approach an ageing population as an opportunity. This mind-set has been incorporated in the development strategy for the entire community.

Seniorpolis, in cooperation with universities, research institutes and technical high schools promotes know-how and business concepts within different senior citizen services. Seniorpolis offers Ristijärvi municipality as a pilot area to test new technology and different products to be offered to senior citizens. This for example includes the construction and renovation of housing for senior citizens, with research of structural, functional and technological solutions. In the field of lifelong learning, new artistic and cultural services are developed, as well as online courses. For this purpose, a recording studio has been created, as well as an academy of arts and culture with the technical equipment needed to create and run online courses. New solutions are also developed to promote autonomy and to design preventive health care measures. A gymnastics centre has been established for this purpose.

Seniorpolis is therefore to be considered as a Living Lab, i.e. a community where new technologies and solutions can be tested. Living labs make it possible to centre innovations on the user, and to involve other stakeholders, such as local and regional authorities who fund and operate a large share of publicly funded services targeting the elderly population. Establishing Seniorpolis as a 'living lab' therefore does not imply that its elderly citizens and service provision bodies become the 'guinea pigs' of external researchers and entrepreneurs. These different actors engage in a balanced cooperation, where

attention is paid to mutual benefits and open dialogues. On the basis of this approach, the promoters of Seniorpolis seek to promote co-creation and the interactive emergence of new ideas: users of Seniorpolis activities should feel immersed in a created social space, in which their impressions and ideas are welcomed and promoted.

In September 2015, Seniorpolis started a senior tourism development project called Helmi Villas Business Networking Project. The project's objective is to establish a holiday resort for 55+ holiday makers, with a large variety of well-being activities. This initiative received funding from the national Sustainable Growth and Jobs Structural Funds programme in the 2014-2020 programming period to further develop the business idea and establish a sound basis for the involvement of private investors.

The concept of Seniorpolis therefore does not only involve local authorities, but also the Kainuu region together with different organisations. It is established as not-for-profit regional development company. Based on reflections on how to change the mind-set in the '90s, the mayor of Ristijärvi started the Seniorpolis in the autumn of 2000. The first physical infrastructure (a multi-purpose hall, and a housing unit) were constructed in 2005-2006. From 2010, the Seniorpolis started focusing on the retirement of the post-World War II baby-boomers, and the new needs this would lead to. Return migration of young retirees is an opportunity that local authorities would like to capitalise on.

Sources: Ruract (2010), Susi (2008).

The silver economy is not only based on economic potential but also on the sustainability of public expenditure linked to ageing. The annual age-related governmental expenditure accounts for 25% of EU GDP or about 50% of government expenditure, projected to grow by more than 4% of GDP until 2060. (European Commission (2015d)) A developed market of goods and services for active and healthy ageing would have significant impact on the efficiency of health and social care systems and could also increase their sustainability. The implementation of social and technological innovation, such as eHealth, telecare, integrated care or independent living has shown the potential to substantially increase efficiency of health and long-term care systems at regional and national level. It also leads to cost savings.

Silver economy may also bring important job opportunities, especially in health and social services. Healthcare workers account for 10% of all jobs in the EU28 and is projected to grow at a much faster rate (+8.1%) than the overall EU employment (+3%) through 2025. By 2020 one million new healthcare jobs are

projected, while an additional 7 million job openings are expected due to replacement needs.

The development of a so-called ‘silver economy’ is an opportunity for regions and cities to improve the quality of life of seniors by offering more attractive products and services better tailored to their specific needs. In addition to this, new employment opportunities, impulses for entrepreneurship and new forms of value creation arise, which can positively influence growth and create jobs.

The silver economy is regarded as one of the most important economic drivers for the coming years, because of the considerable economic resources of the current elderly generation.

In the design of development strategies, local and regional authorities need to take into account these potentials and assess the strengths and weaknesses of their respective territorial, economic and population structure with regards to opportunities related to the attraction of new businesses and services. Sectors with high growth and job-potential are the healthcare industry, services and technology that facilitate independence and ageing at home and independent-living products and services and technology and online products and services.

The case study of Italy shows the focus of certain regions such as Lombardy, Emilia Romagna, Lazio, Veneto and Tuscany on economic development in the medical device market. A supportive policy regime facilitating the access to public financing, but also an existing innovative milieu, high quality of human resources and the existence of technically specialized satellite activities have fostered the development of regional clusters in this sector.

Additional examples of sectors expected to benefit from the silver economy when offering products and services addressing the needs of elderly persons are: cosmetics and fashion, low-season (senior) tourism, leisure industry, smart homes and renovation of building stock supporting independent living, service robotics, health (including medical devices, pharmaceuticals and eHealth) and wellness, sports and health clubs, the food and nutrition industry, safety, culture, education and skills, entertainment, personal and autonomous transport, banking and relevant financial products. The needs and demand of the elderly differ from the demand of young people for these products and services by specific requirements for their design, e.g. related to the accessibility of services and their social and communicative value.

The case study on Ristijärvi Seniorpolis shows the attempt to improve the understanding of the specific requirements of elderly in regard to these emerging products and services with a communal development strategy focusing on promoting know-how and business concepts within different senior citizen

services. The Living Lab approach helped to centre innovations on the user, and to involve other stakeholders and to foster engagement, co-creation and the interactive emergence of new ideas.

3.2 Volunteering

Other than the economic benefits of an older society described in the sub-section above, there are also other advantages, notably the potential for the elderly to volunteer, contributing to the tertiary sector (European Commission, 2014a). The Commission (2014a), suggests that it is important to involve people in voluntary work early in their life course in order to ensure their participation rate at older stages. Van Willigen (2000) states that elderly people invest more time into volunteer work than the rest of the population, because they have more uncommitted time. In addition to their time spent in volunteering, an element of interest is that they also volunteer in different types of organizations compared to younger persons. The significance of this section lies on the discussion conducted on the demographic, psychological and behavioural factors that influence elderly volunteering as well as the implications for policy makers and LRAs. Illustrated by case studies and a presentation of status quo for elderly activism practices, the following outlines the rationale for developing such practice. Along those lines, the discussion on elderly volunteering notably stems from the examination of the concept of volunteering and socio-economic implications. This sub-section accordingly also further investigates the current trends in elderly volunteering and possible methods for LRAs to boost the participation rate of elderly in this sector.

While volunteering is undeniably gaining momentum, social sciences literature observes a dramatic decline of civic involvement, a wide collapse of civil society and an attrition of social capital. Considering these trends, volunteering can be seen as a double-edged policy option: on the one hand, it is a way of acknowledging that welfare systems of previous decades do not function as they should. On the other hand, volunteering can be approached as a potential alternative solution of social integration and cohesion. While a wide array of definitions is available, the most commonly described features of volunteering include the following characteristics: non-obligatory, unpaid, a clear anchoring in empathy and altruism, and a somehow organized context (Dekker, Halman, 2003).

Drawing a parallel between ageing trends, shrinking populations and the topic of senior citizen volunteering correspondingly offers an interesting insight for LRAs examining pathways to comprehend and foresee societal changes (section 1) and mitigate the impact of demographic change on public expenditure

(section 2). Furthermore, making the case for elderly volunteering is essential to showcase the role and potential of seniors in compensating or complementing the areas deemed economically unviable by economic agents and where public institutions may not be able to completely fulfil public demand. Understanding the underlying motives and patterns of volunteering growing out of the market failures/government failures theories is therefore indispensable. It is argued that “*voluntary action is necessary to offset the inability of both the market and the state to satisfy public demands for collective-type goods*” (Salamon, Sokolowski, 2003). The value (economic or societal) generated by elderly volunteering is consequently of utmost importance in the light of the impact of the subsequently described examples. It is intended to enlarge the sole topic of volunteering with related elements and topical issues in order to develop an enhanced discussion.

Reportedly, unconditional universal income contributes to foster participation and develops alternative ways of exchanging goods and services between individuals and within communities, and enhances social cohesion. Participation would comprise all sorts of activities, which policy makers agree satisfy the requirement social participation without obstructing the functioning of the market. A sound and adapted legal framework surrounding volunteering activities is accordingly a prerequisite. The related concept of participation income (Atkinson, 1996) similarly intends to grant individuals a right to secure fix revenue providing that the recipient justifies his/her participation as a condition of support.

For both unconditional and conditional incomes, there are ongoing debates raising questions on this paradoxical idea of financially supported volunteering activities. A society’s culture, norms and value systems would greatly influence such approach of volunteering. Indeed, would a financial incentive denature the intrinsic selflessness and altruism of volunteering? In other words, does receiving an income affect the ethical motivations for volunteering? For instance, in the case of a conditional income, would someone undertake just enough voluntary activity to get paid? And would that matter? Likewise, in the case of an unconditional income, should institutions rely on the good will of individuals?

Another approach of volunteering is based on the notion of ‘civic service’. Different forms of such civic service mobilise increasing numbers of individuals wishing to participate in a collective impetus and ultimately improve participatory democracy. Such schemes are largely targeting youth in countries, notably in France, Germany and Italy which have relatively recently ended their compulsory military service. In France, the service is reported to be extremely popular is by definition “a voluntary commitment to serve the interest of the

general public (...) and can be carried out in associations, local authorities (town's halls, departmental or regional governments) or public institutions (museums, secondary schools...etc.) and for which the amount of 573 Euros is received" (Centre of European Culture: online)²⁰. The aim is to reinforce national cohesion and social diversity. The French model, since the enactment of the '*Service civique*' law in 2010, has shown tremendous impacts, not only for the beneficiaries (unique life experience) but also for the entire society (Service Civique, 2012). Such results and success may consequently be considered as an innovation in civic participation and raise the question of its transferability generalisation to a larger section of the society.

Other types of volunteering are more privately organised. WWOOF for instance is a global movement connecting "volunteers with organic farmers and growers to promote cultural and educational experiences based on trust and non-monetary exchanges" (WWOOF: online)²¹. Therefore contributing to enhancing social and environmental sustainability, WWOOF replaces human beings at the centre and basis for interactions and exchanges. In the light of the ageing rural population, such initiative represents an alternative way the reshuffle the rural fabric, currently at the end of the rope.

Volunteering does not only help the tertiary sector, but also has the potential to reduce public costs by keeping the elderly population healthier and contributors to the economy. Van Willigen (2000) found that older volunteers experienced an increase in life satisfaction and well-being over time as a result of their volunteer hours, especially at high rates of volunteering. Senior volunteers also experienced positive changes in their perceived health. Research (e.g. Cunha and Heckman, 2007; Gribbin et al., 1980; Knudsen, 2004; Mazzonna and Peracchi, 2009) shows that cognitive abilities can be best maintained in older age through living in a stimulating environment and through occupational and leisure activities.

Text Box 8. Ageing together in large communities, Ireland

People aged 65 years and over represent 12% of the aggregate rural population in Ireland and 13.7% in Northern Ireland. Traditionally the island of Ireland has a socio-economic structure strictly linked to its rural geographies; in spite of the growing urbanized socio-economical dimension, Irish identity (who Ireland and Irish are and how others are likely to view the island) is still very much engrained in rurality, and this is particularly relevant for older generations.

²⁰ http://www.cceangely.org/Site_CCE/contenu.php?cat=41&lng=2

²¹ <http://www.woof.net/welcome-to-woof/>

Ageing in a rural community presents many challenges. Remote locations, combined with low densities and sparse settlement patterns, make it particularly difficult to organise an efficient service provision, to provide public transportation services and maintaining social connectedness. According to some studies, the risk of poverty, isolation and loneliness increases with age, especially in rural areas. On the other hand, rural areas are contexts that can facilitate, challenge and enhance the lives of older people living within them.

To investigate the social component in ageing rural areas, the HARC (Healthy Ageing in Rural Community) research network has conducted qualitative analysis across the island of Ireland, in Letterfrack (Connemara, County Galway), the Ards Peninsula (County Down), Blacklion and Belcoo (Cavan-Fermanagh cross border area). The three sites have a similar social and economic context with evidence of cyclic decline: a lack of employment leading to a population decline, which in turn results in a reduction of health and social services.

One of the aims of the research was to explore the role of community groups that both represent and help older people in these communities. Even if there were differences in the scope and scale of the organisations considered, research findings demonstrate that such groups make a crucial contribution to the life of each community and the well-being of individual senior citizens. In addition, seniors were actively engaged with their local communities through formal and informal voluntary and community work. In this sense, volunteering contributes to increase the sense of belonging of elderly people to the local community.

A similar research has been developed by the ICSG (Irish Centre for Social Gerontology) in 10 communities across Ireland and Northern Ireland. The study focused on the risk of material deprivation, social exclusion and limited access to services in rural areas. In each site, the economic downturn has led to repeated reductions in state expenditure. By way of consequence, public services have been cut, and an increasing share of social service relies on community-based volunteering. Results show that the community and voluntary sectors now provide the bulk of social services for older people. In many cases, voluntary activities were the primary source of social engagement for older people and the primary reason why older people in their communities were less likely to be excluded.

On the topic, Northern Ireland has participated to the O4O project (an EU Northern Periphery Programme Project 2007-2010), to identify, for rural communities, older people's needs for basic services and to establish initiatives to enhance their quality of life. The project has identified some basic needs that can be met with a change in LRAs' policies. In particular, LRAs should enhance

the participation of older people, promote service co-production with communities and integrating older people in policy-making and in public sector decision making. In addition, LRAs could put in place structures to empower communities to engage service co-production.

Sources: Northern Ireland Statistics and Research Agency (2001); Northern Ireland Statistics and Research Agency (2008); National Council on Ageing and Older People (2016); Ryan-Nicholls, K. (2004); Walsh et al. (2010); Walsh et al. (2012).

Text Box 9. Senior Mentor programme, Hungary

The mitigation of the effects of demographic change, such as a shrinking labour force, a fall in regional economic productivity and lack of adequate human resources as well as its impacts on social protection systems will very much depend on future education policies and the comprehensive implementation of the idea of lifelong learning in practice.

From 2001 to 2007, the number of residents aged 65 and older increased from 1.1 million to over 1.5 million in Hungary, making up 16% of the country's population. By the year 2025, this segment will make up 20% of the country's population (i.e. 2 millions). A large number of retired people would like to make an active contribution to their community but lack the possibilities.

The Senior Mentor Programme addresses the challenges faced by the elderly population and at the same time uses their potentials to tackle the shortages in human resources and know-how in primary education and tutoring. 57% of Hungarian elementary school pupils spend their time at home alone after school and have no access to after-school care programmes. Underprivileged kids whose parents cannot afford to provide them after-class tutoring tend to fare less well in class and to get lower grades. Specifically in low-income areas, schools do not have enough human resources for after-school programmes and have an overwhelming need for staffing and volunteers.

The Senior Mentor Programme (SMP) is coordinated by the Civic Enterprises Association, with financial resources coming from service agreements with public schools or organizational partners, fundraising actions targeting companies and individuals and fees charged for the volunteer coordination. These contain club membership fees to be paid by the participants and assignment fees which are usually paid by schools or supporting municipalities. The project was launched in 2007 and currently operates in 22 public schools across Hungary and 2 in Slovakia. More than 110 seniors serve as tutors to children in urban public schools and after school programmes, where they teach children to read and help to develop the confidence they need in their studies

and in life. Monthly team meetings and trainings provide highly qualified tutors and mentors for students, and help tutors to learn from peers and to form a support network. Tutors are part of a team at school sites and receive daily support from a neighbourhood-based Volunteer Coordinator.

The progress of participating children is continuously evaluated through questionnaires. These show that the volunteers' work has a positive impact and that the reading skills of participating pupils have improved. Benefits for volunteers have also been measured. 63% of senior volunteers reported an increased awareness of general community events or activities and 47% saw an increase of their awareness of the importance of community service. Until 2020, the SMP aims to employ 200 mentors who would work with between 10,000 and 15,000 children. The precondition for success is to create a dense network and a tradition of horizontal cooperation between local volunteers and urban public schools, youth-serving organizations and municipalities.

Sources: Gere (2012); Demjén (2012); Civic Enterprises (2012).

Mazzonna and Peracchi (2009) show that people with higher educational attainment tend to maintain higher cognitive abilities throughout their adult lives, while the EU-funded LEPAS project shows that an increase in life expectancy leads to more time spent in education and less in labour supply if labour supply elasticity is sufficiently high (Kuhn and Prskawetz, 2012). Additionally, as previously mentioned in section 2.4, working longer does not reduce employment opportunities for younger generations. While many people think that keeping seniors longer in labour will deprive youngsters of jobs - economists call that the “lump-of-labour fallacy” – this is not the case. Through a regression analysis which compared employment rates of older (55-59) and younger people (aged 20-24), OECD (2011) showed that the relationship between these rates is positive and highly significant in statistical terms. This implies, that there is a fixed number of jobs in a national or regional labour market which demands workers of different ages to a similar degree and that trade-offs between employment of younger and older workers are limited in the long term.

The European Union is multi-faceted and so is the practice of volunteering. The value created by voluntarily participating to the common good is not properly or not at all accounted. A very unfortunate ascertainment since what is not assessed is not valued. Along those lines, culture and social norms appear to play a critical role in determining the way volunteering is considered from a legal standpoint. As described in this section, the civil society is indisputably astute and innovative when developing alternative models of collaboration and exchanges to the mainstream market-based systems.

Yet, it is up to local and regional authorities to take on the move and supply a tailored framework on which those initiatives can thrive. Elderly volunteering is indeed carefully considered by public authorities, which are at the forefront to capitalizing opportunities for active ageing and fostering social and economic inclusion of elderlies. The way LRAs adapt and, to some extent, mitigate tremendous demographic change may be a key catalyst to leverage the potential of volunteering.

Therefore reflecting and building on the sections' findings and concrete case studies, it is intended to develop ideas and suggestions on how to promote elderly volunteering.

The section showed that the likelihood of elderlies to undertake volunteering activities is contingent to various factors, the volunteers' characteristics in particular. Efforts to engage with elderlies therefore need to start with the establishment of common access to information on the types of activities already conducted, hence optimizing the appeal to "inactive" elderlies. A tailored approach shall also take into consideration the particular needs and numerous barriers that may impede elderlies from taking part in their communities. For instance, restrictions or barriers entail, inter alia, a reduced social network, mobility issues resulting in restricted access to political and civic procedures and potentially limited level of understanding with regards to information and communication technologies.

Likewise, promoting lifelong learning can empower senior citizens to contribute to society, especially when focusing on boosting enthusiasm, self-esteem and motivation of seniors. Bridging the digital gap via trainings can similarly enable seniors to take on initiatives or join various already existing volunteering groups.

3.3 Residential economy

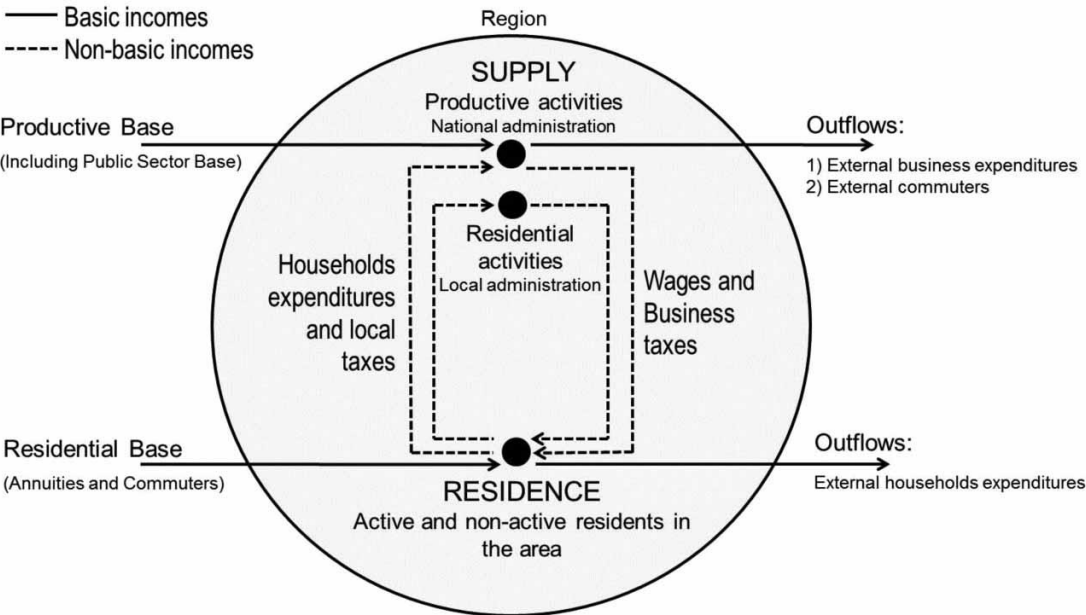
When considering a regional economy, one can either focus on the businesses it hosts (i.e. its productive economy), or on the population living on its territory (i.e. its residential economy). In European societies, extensive income redistribution implies that the presence of citizens generates a substantial inflow of revenue to a regional economy. In addition, distance working and commuting makes it possible for a number of local and regional authorities to host economically active citizens, but not the companies they are working for.

According to the revised economic base theory, the 'economic base' in a region can come from either 'productive' or 'residential' economic activities. An

activity is referred to as ‘productive’ when producing is largely directed towards extra regional demand, while is referred to as ‘residential’, when the good or service is directed towards intraregional demand, i.e. towards resident consumers. The ‘residential base’ is constituted by the incomes of all residents in the area. Incomes of residents are not only induced by productive activities (in form of wages) but also can be imported from outside through active commuters’ daily movements. In addition, non-active residents are beneficiaries of the distribution of different types of transfer income (i.e. pension annuities, disability benefit, social security and various other welfare payments), as well as income generated by own accumulated capital (Segessemann and Crevoisier, 2013). The relative importance of these transfer incomes can tend to increase with ageing, as the number of retirees increases. This revised economic base theory is illustrated in Figure 27.

One should also take into account the fact that leisure society generates ‘presence’ that is disconnected from permanent residence, e.g. through tourism and secondary housing. This presence generates additional inflows of revenue, not only in the tourism sector but more generally through this additional temporary population’s consumption. The French social scientists Laurent Davezies and Christophe Terrier coined the term ‘presential economy’, which they developed out of a revised economic base theory; they argue that LRAs can develop strategic actions focusing on their total ‘present population’ considering both the income they generate and their needs (Terrier, 2006; Davezies, 2004, 2008).

Figure 27. Circular flow of incomes in the revised economic base theory

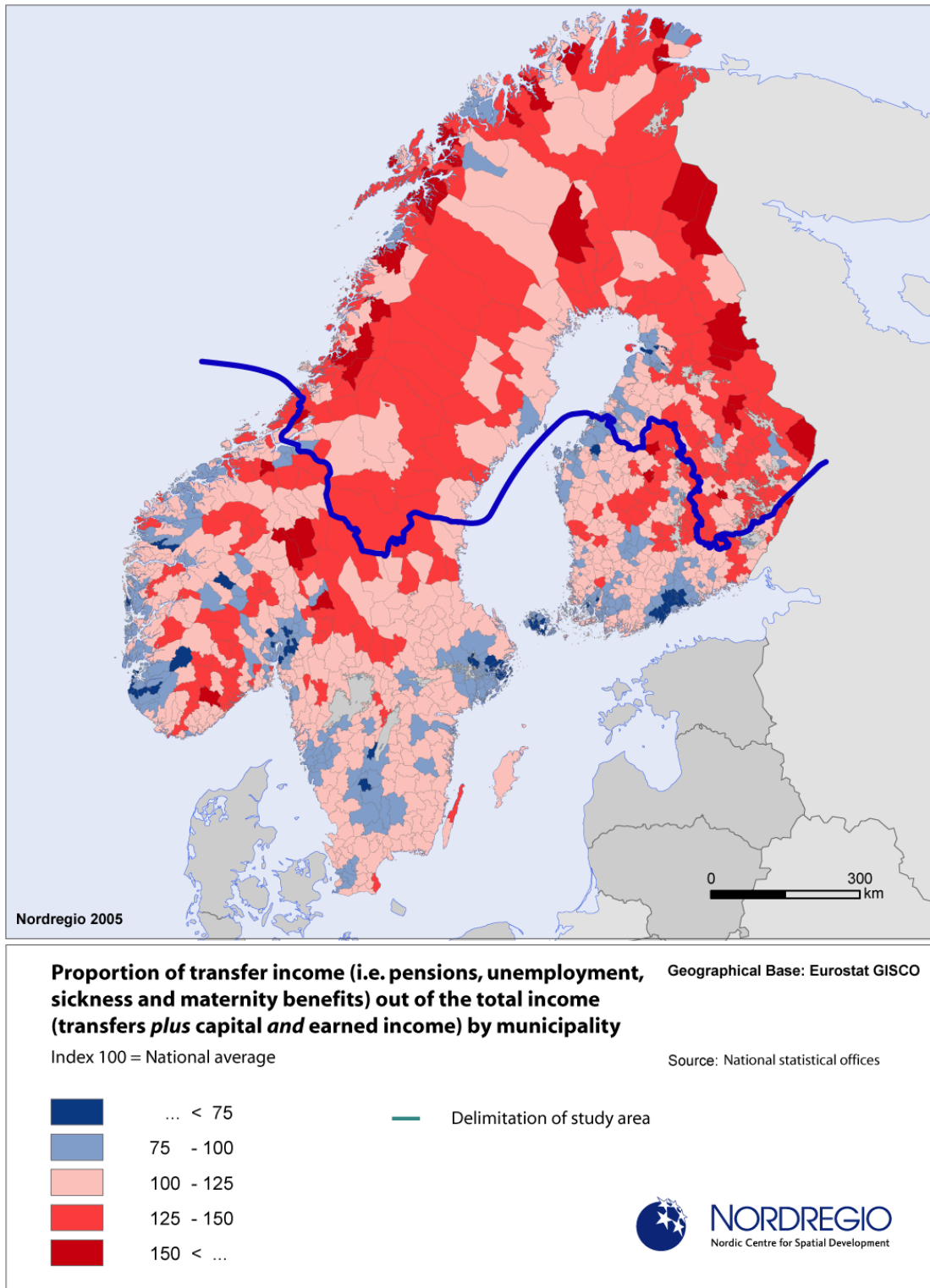


Source: Alain Segessemann & Olivier Crevoisier (2015).

Studies conducted by Davezies in France highlight the importance of non-productive bases for regional development process. He shows that income captured because of permanent (or temporary) residence of non-active agents in the territory (retirees and beneficiaries of social transfers, active commuters working outside the region and tourists) is by far the most important base for urban and employment areas in France, representing around 60% of total basis against only 20% for the productive base and 20% for the public sector base (Davezies, 2009). Similarly, based on research in Switzerland, Riser et al. (2013), argue that by commuters, retirees and second homeowners incomes generate a substantial external inflow of income in selected regions. Overall, transfers of income for most regions constitute a more important basis for economic activities than income from export-oriented activities. This income is to a significant extent used to purchase locally produced goods and services, and therefore generates additional economic activity and new employments opportunities.

Figure 28 below shows the proportion of transfer income related to total municipal income in Norway, Sweden and Finland. It shows how rural and remote regions benefit from larger proportions of transfer incomes. The question is whether this reflects a natural and economically rational division of roles between localities, or an insufficiently dynamic productive economy in these localities.

Figure 28. Proportions of transfer income in total household income in Finland, Norway and Sweden (2001).

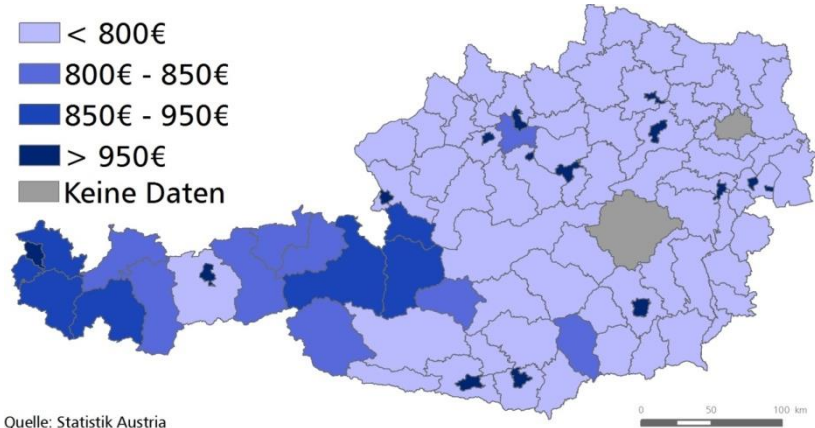


Source: Gløersen, 2008.

Another form of redistribution between LRAs is through transfers to compensate for differences between their respective tax resources, and support from the state. In Austria, the general government sector comprises four sub-sectors: federal government, nine state governments, 2,102 local governments and social security institutions. According to constitutional law, the federal and the nine Länder governments are autonomous with respect to administration and legislation.

Tax administration remains mostly at the federal level. Approximately 95% of all revenue is levied by federal revenue offices, municipalities levy more than 4% and Länder less than 1% of the total revenue. The Fiscal Equalization Law (Finanzausgleichsgesetz, FEL) details the rules of tax sharing, intergovernmental transfers and cost bearing between the Federation, the Länder and the municipalities. The FEL determines the distribution of revenue deriving from so called shared taxes, and allocation is guided by the number of inhabitants of a Land or municipality, with a scaled population multiplier favouring larger municipalities. It is widely disputed in Austria that the FEL does not lead to a reduction of disparities but rather the opposite, because it is lacking an assessment and consideration of regional challenges. Figure 29 shows the effect of this regulation, with cities and agglomerations with higher population receiving higher transfers.

Figure 29. Tax transfers to municipalities per capita in Austria, 2013



Source: Statistik Austria.

Segessemann and Crevoisier (2015) argue in their paper that residency is crucial in attracting wealth and jobs to a region, due to different income sources within a region (work, wealth, annuities or transfers) on the one hand and the generation of local business activity, employment and income on the other hand. This is due to the evolution of the relationship between places of production and places of residency, formed by the changed and expanded mobility of commuters, students, tourists and retired people.

The following example of international retirement migration emphasizes the increasing complexity of mobility and therefore also a diversification of links between productive and residential bases.

Text Box 10. Retirement migration from other parts of Europe, Spain

International retirement migration is one of the residential strategies adopted by senior citizens when they leave the job market, and their individual, social and family conditions change. It is a temporary and voluntary strategy, conditioned by the possibility of living longer and better during retirement.

The driving motivations to retirement migration, namely climate conditions and cost of living, have made the coastal regions of the Mediterranean the most desired destination. During the end of the '90s, seasonal and temporal movements (to spend autumn and winter in Southern Europe) have been widely replaced by permanent migrations. Different statistical analyses give evidence that the coastal areas of Spain, especially the Costa del Sol, were the most important destination, followed by the French Riviera, Portuguese Algarve and Italian Tuscany.

Foreign retirees in Spain have residential interests linked to the Spanish tourist model, because most of them (more than 85%) live in the 14 provinces of the Mediterranean coast and the islands, especially Alicante (34% of the total) on the Costa Blanca, and in Málaga (20%) on the Costa del Sol, followed by the Balearics and Canary Islands. The British and Germans are the predominant nationality groups in these areas, followed by Nordic countries (Sweden, Norway, Denmark, Finland), and Benelux (Belgium, the Netherlands). The French tend to settle in Catalonia and the north of the Valencia Region, because they are closer to their places of origin and to their employment ties.

Many migrants to Spain chose to live in purpose-built villa developments. One such example is the Urbanizacion la Marina, near Alicante, construction of which begun in 1985. At the beginning of 2000 it had the largest proportion of non-Spanish resident of any other municipality in Spain: around 8,000 of the 10,000 residents were foreign and most of them were from UK.

Urbanization policies adopted by some LRAs in coastal parts of Spain have made Spain a more popular destination among foreign retirees. The creation of districts dedicated to elderly foreign population, makes it possible to offer tailor-made facilities (such as beaches, swimming pools, restaurants and bars). The possibility of having neighbours who speak the same language is an additional asset.

At the end of the '90s, studies on retirement migration, have shown that European retirees in Spain were relatively young, with an average age of just over 66 years. Only 17% were over 75 years old.

A recent study on British retirement migration to Spain shows that there are 201,843 registered British people in Spain over the age of 55, which represent 27.71% of the total foreign population aged over 55 years. The study also indicates a considerable increase in the number of British people returning to the UK between 2008 and 2013. From 2013 returnees over 55 years represent 49.59% of total returnees. Over the last few years, while overall returns grew a rate of 190% between 2008 and 2013, returns among citizens over 55 years grew at a rate of 638% and over 70 years at a rate of 1,025%. The increase in returnees between 2012 and 2013 is massive, especially compared to previous years.

Possible explanations for these increases in return rates are linked to economic crisis, rising costs of living and exchange rate fluctuations which can have a massive impact on those receiving their income (pension) from the UK.

In addition, citizens that arrived with the boom of retirement migration prior to 2000 are now ageing and new motivations (as the death of a partner, loneliness, physical and social isolation, disabilities, needs for healthcare and/or social services) encourage expatriated retirees to return to their country of origin. Different researches sustain the view that some older British people return to the UK to access both formal and informal support in their old age, especially as their resources (health, care, financial, social) for independent living diminish.

Sources: Centre of Human and Social Sciences (2016); Rodriguez et al. (1998); Rodriguez et al. (2004); Giner-Monfort et al. (2015); Huete et al. (2013).

In addition to the opportunities for the economy as a whole, more elderly people can result in an increased stability in family finance. The European Commission (2014a) finds that in Central and Eastern Europe, co-residing elderly parents give support and help their adult children more often (in the EU as a whole, this happens 60% of times). Transfers of time and money in non co-resident families are less frequent in northern than in southern Europe (European Commission,

2014a). The issue of remittances between regions and countries of the EU may more generally be addressed.

This aspect can be important for LRAs, since, as Kuhn and Prskawetz (2012) note, “*transfers, not births, shape the process of ageing in social, i.e. transfer-giving, species*”. As to the magnitude of such transfers, the OECD (2011) finds that people over 50 are much more likely to be givers than takers, with children accounting for two-thirds of cash transfers made by the over 50s. This, as shown above, is not necessarily a strain on public finances if LRAs develop policies to take advantage of these stabilised family finances.

Family patterns are also changing, as Saraceno (2008) shows: families are becoming smaller (fewer siblings), increasingly de-institutionalised and non-co-resident. In addition, family dissolution and reconstruction patterns make the picture even more complex and fluid. Economists (see Becker and Lewis, 1974) argue that parents prefer to have a higher consumption level rather than having more children, leading to a decreasing fertility rate the higher the income.

In the Anglo-Saxon debate, the discussion about the residential economy focuses on 'amenity migration'. Under amenity migration, the movement of people based on the draw of natural and / or cultural amenities is understood (Moss, 1994; Moss and Glorioso, 2014). Elderly people looking for a nice residence upon retirement were the first to migrate, followed by wealthy people looking for a second home. These days, also younger people who are not tied to a fixed workplace are the drivers of this kind of migration. In this respect, the EU has seen a new phenomenon - the rise of the independent professional, or iPro, often referred to as freelancers. Numbers have increased by 45% from just under 6.2 million to 8.9 million in 2013, making them the fastest growing group in the EU labour market. (Leighton and Brown, 2013)

McIntyre (2009) refers to the lifestyle and the socio-ecological dimension and calls it 'lifestyle migration' and Bourdeau (2008) regards it as part of a post-tourism movement.

McIntyre argues that with the movement of people also other 'mobilities', such as money, expertise and information get initiated by the voluntary relocation of people. Alain Segessemann & Olivier Crevoisier (2015) add that residency should also be considered as an additional factor for regional development, as human capital plays a key role in regional development (e.g. regions trying to attract talents, including high-income leaders).

Lifestyle migrants may include both those who relocate temporarily (e.g. tourists, second-home owners) and permanently (e.g. retirees). These

different types of migrants display a mix of motivations, from economic (productive) to lifestyle (consumption) reasons for relocation, e.g., entrepreneurs, exurbanites, peripatetic recreation workers, retirees. The major movements of population in recent times in both Europe and North America have been to the 'periurban' or 'exurban' fringe, which allows residents ease of circulation for work and leisure among communities and rural environments and between these and the metropolitan core. But also rural spaces have experienced a renaissance due to late-modern flexible modes of production, transnational capital markets, free trade and electronic information exchange. Although local economic, social and environmental conditions vary widely between centres, research has shown that rural centres set in attractive natural environments with good communications and accessible air travel to metropolitan areas are the prime target of the knowledge-based workers, professionals, entrepreneurs and affluent retirees (McIntyre, 2009).

The example of Appenzell Ausserrhoden in Switzerland (Riser et al, 2013) shows that promoting a stronger residential economy may not only create an attractive offer for the immigrants, but also advantages for the existing native population, such as improvements of the local supply and service offerings, the infrastructure and an overall increase of living and quality of life. An improved supply and infrastructure investment should ultimately lead to job creation and regional added value. While regional development in the past was equated with the obtainment of export earnings, the residential economy shows how capital imports also can contribute to the strengthening of the regional economy.

However, a strategy aimed solely at increasing the attractiveness as a place of residence may also introduce a variety of social and environmental problems for both residents and migrants (e.g. gentrification, lack of affordable housing, rapid increases in the cost-of-living, loss of environmental amenity and access). Also the immigration of certain groups, such as previous commuters, retirees, pensioners and second home owners who transfer their residence in the region, while they obtain their income either by the State or outside of the region, has an impact on the regions in different areas. A corresponding supply of living space and infrastructure has to be provided by the region, which is connected to costs for the region and has impacts on the development planning and the area consumption.

Text Box 11. Residential economy – Appenzell Ausserrhoden, Switzerland

Riser et al. analysed the potentials and the current economic significance of the residential economy for the Swiss canton Appenzell Ausserrhoden. In the government program 2012 to 2015 of the canton the increase of the cantonal residential population as a topmost aim is formulated. Appenzell Ausserrhoden wants to create conditions and incentives for higher investments in housing, increase the attractiveness as a place of residence, slow down out-migration and promote immigration.

A SWOT analysis revealed as strengths the financial residential and business attractiveness (low taxes, low rents/property prices), a small and efficient government, a competitive health and care sector and the industrial tradition (high-tech sector). As weaknesses low accessibility, a problematic age structure, the emigration of the young, the lack of an own economic centre, the industry structure with relatively large public-oriented and agricultural sector, cluster risks of industrial sector and few high-value services and the relatively low productivity were identified.

Opportunities arise due to the attractiveness as a place of residence, the Brand Appenzell (landscape and culture), an increase in accessibility by public transport and international immigration. Threats are the strong currency, a continued brain drain and ineffective policies due to small scale.

The strategic goal of the canton is to raise the resident population in the medium term by actively establishing the region as an attractive place of residence for commuters to the nearby productive centre (St. Gallen) and by supporting the location of industry of the export and the residential economy to lower the dependence of the regional economy on the few specialized high-tech firms. Canton and communities together ensure that attractive locations with good transport connections and high quality of living are managed specifically.

Riser et al. (2013) assessed the positive contribution of the residential economy to the overall economy of the canton of Appenzell Ausserrhoden with regards to jobs created and value added.

As dangers of a residential economy, uncontrolled development and a decline in the quality of landscape, rising rents and property prices, conflicting interests between the residential and the productive sector and trading one dependency for another were identified. Schubarth et al. (2009) state that for the promotion of a sustainable economic development the residential and the productive economy within a region need to be combined.

Alain Segesseemann & Olivier Crevoisier (2015) developed an own quantitative methodology based on two indicators according to the revised economic base theory (Davezies, 2008). At first, they measured the intensity level of activities (either productive, i.e. exporting jobs for the national or international market or residential, i.e. jobs for the local or regional market or a combination thereof) in order to measure if a region is strongly based around economic production for residents or exports. Second, they measured the income intensity levels coming from workers, transfers, private wealth or a combination thereof in order to measure if high/low incomes are attracted to the region, deriving from work or annuities or transfers.

A typology of municipalities based on business activity and revenue intensity was then created using Cluster Analysis. They identified three main scenarios of municipal development. Some municipalities base their economic development largely on commuters, pensioners and beneficiaries of annuities. Others specialize either in productive activities that send away affluent residents or in the supply of a mix of activities typical of urban centres with socially mixed housing.

The authors conclude that the residential economy raises questions about distributional issues between the different types of local territories and see it as a development challenge. The effects of the diverse territorial forms resulting from higher mobility raise central questions about local governance, about the best strategy to follow for a local territory in terms of infrastructure development, of taxation level practices or about the redistribution of wealth.

Sources: Riser et al. (2013); Schubarth et al. (2009); Alain Segesseemann & Olivier Crevoisier (2015).

However, when considering income flows, the choice of scale of analysis is important. For example, an income is basic at the municipal level but not necessarily at a wider geographical scale (e.g. regional or national). Economic base theory is particularly relevant for small geographical entities (Alain Segesseemann & Olivier Crevoisier (2015)). There are, in this respect, fundamental differences between economic strategies at national level and local/regional levels. For national authorities, it is essential to promote competitive, export-oriented activities that generate the inflow of revenue needed to organise welfare systems and to maintain balance in the economy. At the local and regional levels, it is possible to choose between strategies oriented towards productive and residential economies. Uncritically transposing the imperative of competitiveness from the national to the regional levels, by suggesting that all LRAs need to focus on export-oriented production, implies that individual companies may not be located where it would make most sense from an economic point of view.

3.4 Remittances

Remittances consist of monetary (financial) and non-monetary (social²², e.g. ideas, values, modes of action) transfers made by expatriate workers to their regions of origin (Anghel et al., 2015). From an economic point of view²³, labour mobility acts as an equilibrium factor that balances discrepancies in income, productivity and supply-demand imbalances. In an ageing context, it is relevant to discuss how surpluses and shortages of labour are filled through economic migrants, and what this implies for both destination and origin regions. This way, LRAs could take most advantage from the presence of expatriates or repatriates.

The World Bank estimates that migrants' remittances to developing countries reached USD 436 billion in 2014, 4.4% more than in 2013 (World Bank, 2015). In the EU, eastern European countries have taken most advantage of labour mobility, and this is obvious in their remittance levels (Romania ranked first in 2013 with USD 3.6 billion, followed by Hungary with USD 2.4 billion). However, as explained by Anghel et al. (2015), evaluating the impact of remittances is difficult because of data availability, since such transfers usually reach their recipients via informal/unofficial operators²⁴.

Despite data gaps, research on remittances is hugely debated, especially concerning their impact on economic growth and sustainable development. Although remittances help reduce poverty in the recipient country (World Bank, 2006), the reduction is small²⁵. Their impact on income inequality is disputed, some finding a negative impact on the GINI coefficient (Adams et al., 2008a; Barham and Boucher, 1998; Rodriguez, 1998), arguing that migration is costly and therefore is more accessible to middle and upper-income groups, further increasing inequality in their countries through remittances. McKenzie and Rapoport (2007) find that although initially they increase inequality, remittances help reduce income inequality as the level of migration increases. The same debate takes place around economic growth impacts: Chami et al. (2005) find a negative effect of remittances on growth as remittances are not perceived as an incentive for improving economic conditions. However, using the same data but

²² This concept was coined by Levitt (1998), where he refers to social remittances as “the ideas, behaviours, identities and social capital that flow from receiving- to sending-country communities.” (Levitt, 1998).

²³ See, e.g. the New Economic Geography theory developed by Krugman (1991).

²⁴ The World Bank (2006) estimates that financial remittances via informal channels would add at least 50% more to the official remittance estimates.

²⁵ The broadest impact evaluation on this topic (Adams and Page, 2005) found that a 10% increase in per capita international remittances reduces the number of people living in poverty by 3.5%.

in addition controlling for economic and political institutions, Catrinescu et al., (2009) find a positive impact of remittances on growth, similar to Giuliano and Ruiz-Arranz's (2009) findings, who see remittances as a substitute for non-existent credit markets in recipient countries. Other studies, like Spatafora (2005) find no links between remittances and growth using 101 countries over the period 1970-2003.

Despite the debates on the impact of remittances, both recipient and sender LRAs faced with demographic change can use migration to their advantage through (a) the positive externalities of having high-skilled migrants and (b) the way remittances are used. Benefits for host regions (a) include productivity improvements, fiscal benefits as such migrants tend to earn more and thus pay more taxes, a better contribution to social issues debates, a readiness of critical public services like health or education, and so forth (Anghel et al., 2015). Sender regions (b) benefit both from financial and social remittances. Financial-wise, the socio-economic context of recipient households determines how remittances are used: middle-income recipients can better understand their values and use them productively, while poor recipients tend to treat them as simple wage incomes to satisfy consumption (Adams et al., 2008b; Castaldo and Reilly, 2007; Randazzo and Piracha, 2014). Studies that point towards a productive use of remittances show their use for children's education, housing, health and investments (see Anghel et al. (2015) for a literature review on this topic). Those showing unproductive usage of remittances suggest that recipients use the funds for consumption purposes, leading to household dependency on the remitter, and thus negatively affecting development (Anghel et al., 2015).

The effect of social remittances has been researched in detail by Vlase (2013, 2011), who focuses on Romanian emigrants in Italy, and shows that female repatriates bring about changes in social customs once they return home. Such changes include a more egalitarian view on gender issues, a better education for their children focusing on independence and emancipation (for girls), as well as challenges to traditional gender and family rigidities. Focusing on Trinidad and Tobago, Conway et al. (2012) observe social transfers such as "human rights, gender equality, community empowerment, voluntary work and charity initiatives". Vullnetari and King (2011) reach the same conclusion as Vlase (2013) and Conway et al. (2012), stating that social remittances in Albania expand people's ability to control their lives. More tangible social remittances include technology transfer through innovation²⁶ or institutional transformations (Faist, 2010), new initiatives and business ideas (Anghel, 2013; Cingolani, 2009), civil society involvement (Conway et al., 2012), etc.

²⁶ This is especially the case in IT, as Wescott (2006) shows that 19 out of the 20 top Indian IT companies were founded or managed by repatriates.

Text Box 12. Remittances as drivers of economic and social development, Romania

With demographic change, the demand for additional labour force increases, especially in the elderly care sector. This opens the path for economic migration from less well-off regions, which through remittances and repatriations brings both financial and social returns in the sender region. Demographic change thus helps intensify population movement from younger to ageing regions. This case study illustrates this through an example in Romania.

Vulturu is a village in southeast Romania of 4,174 inhabitants in 2002, with about 150 residents temporarily abroad. Dr Ionela Vlase, through a series of 52 semi-structured interviews with repatriates and fieldwork in Vulturu showed the importance of these financial and social remittances. Most interviewees initially foresaw an expatriation period of two or three years. This finding was confirmed by a survey among 1,066 Romanian emigrants in Italy. However, generally, emigrants ended up staying abroad for significantly longer periods (on average 11 years for men, and 8 years for women, as they arrived later).

Men began emigrating in 1993, the vast majority to Italy, notably to the Rome metropolitan region. Their wives followed one to ten years afterwards. The purpose of emigration was to raise funds for housing construction/repairs, buying durable goods (e.g. car, furniture, appliances), and cover children's educational costs and gather funds to create a business.

Although most male migrants worked in the constructions sector, younger migrants with better language skills and higher socio-cultural capital went for manufacturing jobs in Northern Italy. Some migrants over 40 years with language difficulties had problems finding work in the constructions sector. Many of these chose agricultural jobs in southern Italy. Many women found employment as cleaning ladies or carers for the elderly in their homes. While abroad, they maintained contact with those at home, as well as with co-nationals in Italy. Abroad, women's income was typically used to cover daily expenses, while men's income was directed towards savings and remittances. Vlase estimates that the 20 interviewed repatriates remitted about EUR 1.76 million as investments in tangible assets and existing businesses, excluding remittances for daily expenses for relatives.

The decision to repatriate was taken jointly, but usually at the initiative of husbands. Children's education was often invoked as a reason. Upon returning, men would invest, depending on how long they spent abroad, in real estate, agriculture or in ventures in more advanced industries. Women would return to their status of housewives, with limited opportunities other than supporting their husbands. However, Vlase highlights the social change (known as 'social

remittances’) triggered by their experience abroad: having lived in societies with higher gender equality, they now challenged traditional gender and generational relations at home. This change of attitudes also influenced the values promoted in their children’s education, with greater focus on independence and education.

Many of those who remained in Vulturu considered that brain-drain losses were offset by incoming financial and social remittances. Vlase finds that local development is not an effect of remittances, but a precondition: it is more likely for expatriates to invest in their town of origin if a certain infrastructure is already in place. She recommends LRAs to develop more programmes to re-integrate and attract such repatriates, especially since opening a business in such small communities requires knowing people and keeping pace with social and political changes in the home country.

Sources: Vlase (2013, 2011); Metro Media Transilvania (2007).

To conclude, migration and remittances were proved beneficial for both sending and receiving regions. For receiving, ageing regions, migrants fill out gaps in labour supply, especially for crucial services of general interest like health or care (Vlase, 2013) explains how Romanian women are highly sought-after in Italy for elderly care jobs. For sending regions, these could benefit from financial and social remittances, but only if LRAs provide expatriates and repatriates with the support they need to contribute to regional development. Anghel et al. (2015) suggest that the productive use of remittances is dependent upon context, or ‘constraints’ such as political instability, corruption, lack of infrastructure or of business regulations. Vlase (2011) suggests that remittances used as investments are dependent upon whether LRAs provide repatriates with the infrastructural and reintegration support they need in order to start new businesses. Goldring (2003) and Itzigsohn (2008) highlight the power of collective remittances through home town associations, who then invest in communal works, public service infrastructure, church and recreational activities in their home towns.

3.5 Self-perception and branding as instruments to influence demographic development

Given the importance of the residential economy for local and regional development, self-perception becomes a significant factor of regional and local demographic development. Efforts to modify negative self-perceptions can be part of a strategy to replace vicious spirals of ageing and economic decline in some with virtuous circles of demographic stabilisation and growth, as described

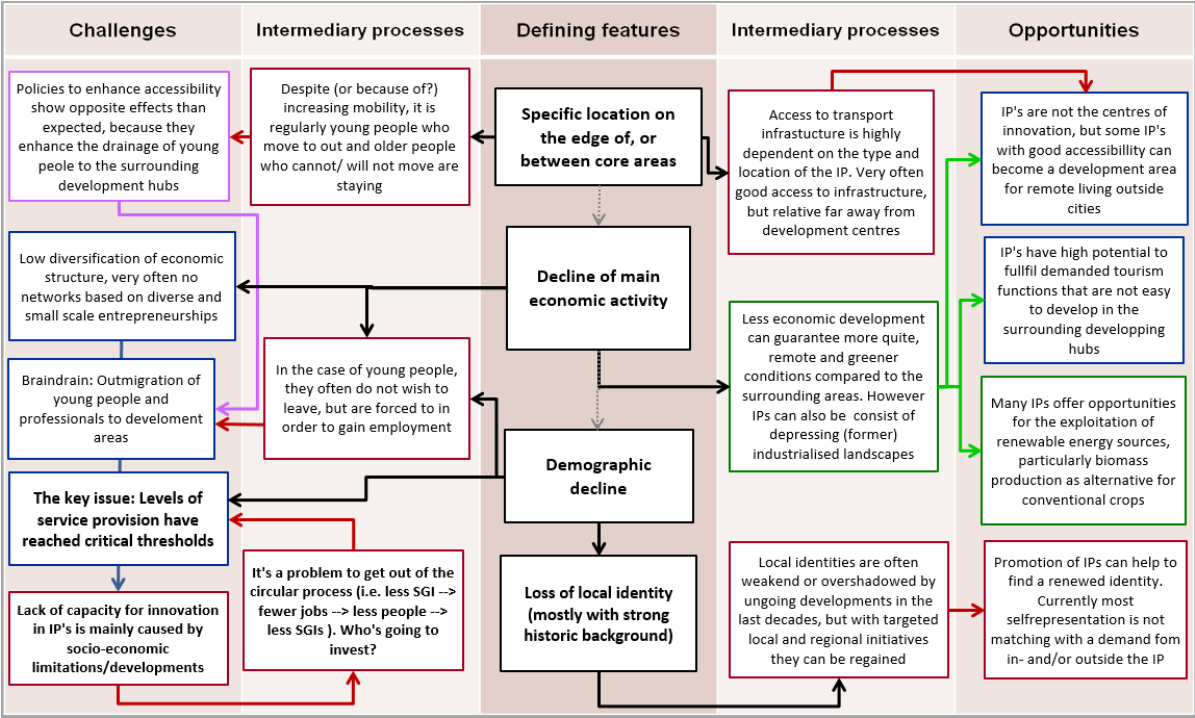
in section 1.4. 'Branding' is rather oriented towards an external audience, composed of visitors and/or potential in-migrants.

This section reviews LRAs' initiatives to work on self-perception and branding in view of impacting demographic trends.

Regions can engage in a negative spiral of demographic and economic decline. Such processes are in many cases initiated by an event such as an industrial reconversion process leading to the closure of key industries. However, the reasons for which they continue are often linked to negative internal and external perceptions. Such areas were identified as part of a study of so called 'inner peripheries' by the ESPON GEOSPECS project, which tried to systematise connections between demographic decline and a loss of local identity, as shown in Figure 30 below. The Figure insists on the causal connection from demographic decline to a loss of local identity, but this can also work in other way. A lack of local identity reduces the attractiveness of an area both for its own citizens, who lack of territorial elements to identify to, and for other actors. As shown, these types of situations call for LRAs' actions to renew local identities.

Transnational cooperation can be an important component of such initiatives, as illustrated by the Innovation Circle Network around the Baltic Sea (see Text Box 11). Territories with limited resources and in a situation of fragility can use dialogue and exchanges as a lever to assert values linked to their territory's specific assets, such as proximity to nature, forms of industrial and architectural heritage and social proximity.

Figure 30. Links between demographic trends, identity and economic development in so-called ‘Inner Peripheries’



Sources: Alterra et al. (2013).

In the case of the Innovation Circle Network, transnational cooperation has helped establishing cultural actions for young people as a lever of economic and social sustainability as a whole. It is all the more important for small and rural communities to ensure that young people perceive their local community as pleasant to live in and dynamic, especially to help to ensure that those who pursue higher education return after graduation.

Regional and local branding is an established component of LRAs’ strategies to promote external investment and economic development. The objective is to create a more distinctive image or reputation, associating a region or locality with certain values and strengths. A number of branding initiatives to attract migrants can also be observed. For example, 49% of Swedish municipalities indicated that they had undertaken campaigns to attract in-migrants in a survey undertaken in 2004 (Niedomysl, 2007). However, statistical analyses of results suggest it is not possible to conclude on a general efficiency of these campaigns, even if some punctual positive effects can be noted. Similarly, Eimermann (2015), having followed the process around six migration information meetings organised by Swedish municipalities in the Netherlands between 2007 and 2011, finds that there is “no general evidence of success” from these marketing campaigns. Some commentators therefore suggest that the function of these campaigns could be to “boost internal morel in ‘depressed’ regions and create a

starting point for more positive development”. However, Eimermann (2015) notes that LRAs could more efficiently concentrate resources on accompanying potential migrants with advanced plans, e.g. by helping them to establish contacts with local actors and businesses.

More general surveys on ‘place branding’ do not identify demographic issues in general as a core concern (Populus, 2015). The focus is rather on ‘attracting talent’, branding consultants identify as a central objective for 49% surveyed branding projects. The reasons for which such an objective is pursued may nonetheless be linked to demographic processes. 60% of branding efforts are seen as part of a competition with other cities or regions of similar size. However, the link between internal self-perception and social/cultural cohesion on the one hand and external branding on the other is widely recognised. 85% of branding consultants consider it important to engage citizens in the branding strategy, and 64% consider that such strategies need to be built ‘from the inside out’. Considering the established position of social networks, branding efforts increasingly appear as a component of wider efforts to generate a positive social and cultural dynamic.

This would encourage LRAs to better integrate cultural and social initiatives with branding efforts, and to use social networks actively in all these respects. Active use of social media presupposes the elaboration of objectives and strategies. Demographic dimensions can play a significant role both in the diffusion of branding messages, e.g. by capitalising on migrants with a connection to a specific place or region, and in the definition of the objectives to be pursued.

Text Box 13. Innovation circle –targeting youth to enhance attractiveness and improve long-term development perspectives

Innovation Circle Network is an international association that connects smaller towns and medium-sized cities in the Nordic and Baltic countries and in Russia. Innovation circle has implemented a number of projects focusing on young people’s experience living in their local community. Its members consider that out-migration (or, in many cases, the lack of return-migration) is partly due to insufficient efforts to involve young people in the development of their respective community, and to ensure that their social and cultural environment is adapted to their needs and aspirations.

It started with the PIPE project, an INTERREG IIB (2000-2006) project that aimed at stimulating participation, identity, planning and entrepreneurship in selected areas in the Baltic Sea Region. This project had a special focus on involving young people to make use of their visions, ideas and engagement. The

participating areas were all located outside of major metropolitan areas of each country, some with intense out-commuting and some facing marginalisation and out-migration. Involved authorities noted that they would not manage to improve their innovation capacity unless they became more attractive to talented and skilled young people.

‘Identity’ and ‘self-perception’ were identified as important issues. A lack of dynamism in local social dialogue and cultural activities leads to a self-reinforcing process, whereby those who would be able to initiate and implement activities to stimulate the local community tend to focus on opportunities elsewhere and, ultimately, to leave. Transnational exchanges help to realise that such trends can be avoided. On the one hand, young people are made more aware of local heritage and values; on the other, local authorities and communities are encouraged to develop activities and communication tools that allow their younger population to express themselves, exchange and be heard.

These activities were followed-up from 2008 in the ‘Trans-in-Form’ project, which involved county administrations and small-town municipalities from many of the same areas as in the PIPE project. The need for further empirical evidence led to the elaboration of an ‘Attractiveness Barometer’; scenarios were produced to engage civil society and politicians in a dialogue about the future of their territory. ‘Story telling’ and ‘re-branding’ strategies were elaborated. The objective was to design measures to make the local community more attractive, in particular to young women. An important component of the argument was that ‘shortfall of jobs’ for young people should not be considered as a failure: on the contrary, this implies that the local community manages to retain young people who wanted to live there, in spite of the lack of employment. Basing local development strategies on out-commuting can be an acceptable strategy.

Positive outcomes from these projects and others progressively led to the formalisation of the ‘Innovation Circle Network’ (ICN) as a permanent basis to maintain dialogue and generate new projects. Youth exchange continued as an important component of this network’s activities. Transnational cooperation gave greater visibility to initiatives such as music training and festivals, which were initiated in the context of the ICN. This is deemed to significantly contribute to the local success of these initiatives to change perceptions of local communities.

In 2014, it started the project ‘Young Eyes’, with funding from the Erasmus+ 2014-2020 Programme. Young eyes is a learning process for young people, seeking to enhance their awareness of the assets of their local community through international exchanges, and the multiple implications of migration on local development. Social networks such as Facebook and Twitter are used to promote international exchanges on topics such as identity, governance and attractiveness. In addition, young people take part of in international meetings, so called ‘Mirror workshops’.

Sources: (Ruract, 2010), Susi (2008).

4 Recommendations

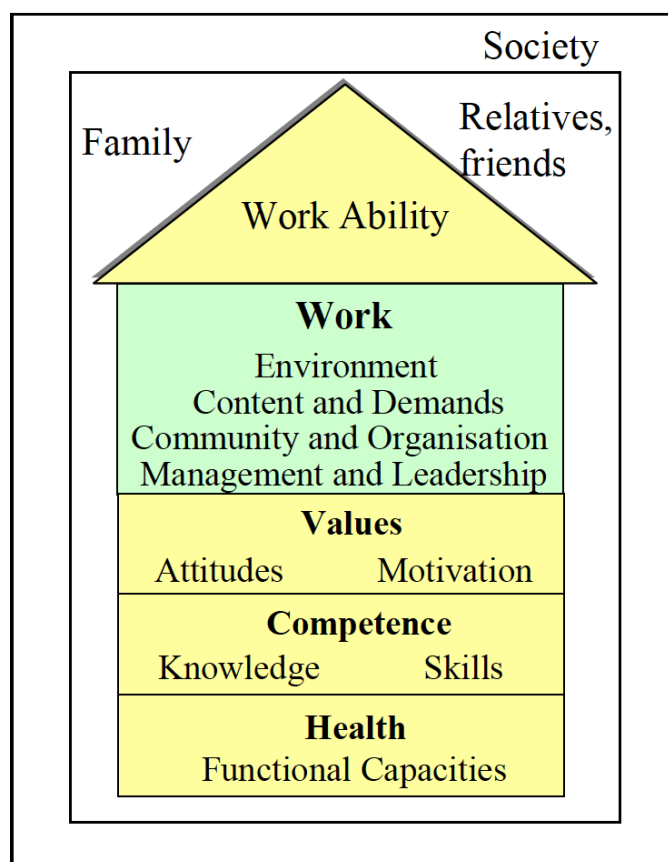
The Europe 2020 strategy (European Commission, 2010) and its main goals provide a useful framework for studying the challenges and opportunities of demographic challenges for public authorities. However, the extent to which LRAs will be confronted with concrete challenges depends on the devolution of power, and the extent to which they are involved in providing relevant services.

As seen in chapter 2, public service provision in the areas of healthcare, education and labour market services are financed, regulated and managed by a myriad of actors, including LRAs. In this interplay of responsibilities, the Committee of the Regions (2010, 2007) advocates a reform in public services that would make the LRAs more adapted to the upcoming demographic changes through a better use of existing technologies and innovative approaches in service delivery. This is only possible if all public and private stakeholders, including LRAs and citizens, align their interests and develop complementary efforts to counter their common demographic challenges.

The need to pool together expertise, financing and policy initiatives is further accentuated by the impact of the recent financial crisis. This is expected in an environment where private and social economic actors are increasingly becoming involved in SGI provision. This combination of financial constraints, emerging governance arrangements and accelerating demographic change turns LRAs into public entrepreneurs (Mazzucato and Penna, 2015) capable of identifying their local needs and devising strategies, based on national and EU frameworks and targets, meant to address them. Such a paradigm shift would also change our thinking from service ‘provision’ to ‘co-production’, and from ‘social security’ to ‘social productivity’ (Rauhut et al., 2013).

Focusing the analysis of potential LRA policies in healthcare, education and labour market services, we noticed that they are intrinsically inter-related in contributing to what Ilmarinen (2006) describes as ‘work ability’, the combination of abilities and policies that make people stay active longer. This is illustrated below in Figure 31.

Figure 31. Work ability and its various components



Source: (Ilmarinen, 2006)

This nexus of inter-related factors can be fuelled by LRAs to influence both short- and long-term demographic challenges. This dual impact is evident in all three SGIs studied. Examples include:

- Healthcare: an efficient healthcare system has the benefits of stimulating fertility rates, as well as decreasing care costs for ageing citizens.
- Education/Lifelong learning: More educated people tend to remain active longer in their profession and community, while also becoming more active. In the short-run, lifelong learning programmes encourage local retention of skills and improved job satisfaction.
- Labour services: Policies aimed at preserving a better work-life balance encourage the entry into the labour force of youngsters, while they help retain older people longer in employment.

A key point in this discussion, as seen especially in education and labour market policies, is the need for LRAs to adapt public policies to current and foreseeable economic needs. In the long-run, public-private cooperation ensures an alignment in human capital between skills needed and skills available locally, and also enables both employers and employees to be flexible in their work arrangements depending on economic conditions or life stage. Social economic actors, such as social cooperatives (given their relevance in services like care and healthcare – see sub-section 3.2) and groups such as employee or sector organisations and volunteer-based learning centres can support LRAs in these efforts. In times of fiscal retrenchment, such actors can complement SGI provision in a number of areas, while directly contributing to keeping the elderly healthier and more active in their communities. These alignments can also help fill in skill shortages in ageing communities by attracting and retaining migrant workers. As shown in chapter 3, skill retention requires both formal (e.g. policy) and informal (e.g. involvement in volunteer-based associations, informal learning, etc.) elements.

In these circumstances of constant adjustments to economic globalisation processes and technological change, it is however important to keep in mind that the major part of the economic basis of European regions corresponds to their ‘residential’ or ‘presential’ economies, i.e. the consumption of all persons present within a locality or region at any given time.

This approach also leads to a renewed thinking on how Europe’s economic and demographic challenges can be approached by LRAs. A focus on regional or local economic performance, opposing ‘good’ competitive territories that generate income and ‘less good’ residential regions that would be ‘subsidised’ by the former may not lead to the best overall results. It can be economically rational to allow competitive, export-oriented activities to be concentrated in some regions only; this would for example be the case of regions where these economies benefit from economies of agglomeration such as large and diversified labour markets, proximity to highly specialised services and outstanding infrastructure such as major airports or logistics centres. The flipside of such a strategy is that other regions are allowed, or even encouraged, to specialise in residential functions. They would therefore, for example, concentrate the senior population.

There are obvious limits to this disconnection of functions. Export-oriented and residential activities necessarily co-exist in all regions, even if their relative importance may vary. However, using measures of economic performance and competitiveness as benchmarks may make it more difficult to implement the best solutions to address current and forthcoming demographic challenges. Allowing geographic concentrations of competitive, export-oriented activities

may for example contribute towards generating the income needed to meet the additional costs induced by demographic ageing. This presupposes that discourses opposing ‘net-contributing’ and ‘net-receiving’ regions are challenged, and replaced by a focus on overall performance and improved division of tasks.

This discussions shows the need to complement narrow approaches of demographic change, e.g. with a focus on service provision to an ageing population. The challenges of demographic change can be addressed by taking better account of the functioning of the economy and the ways in which income circulates between regions and localities. European-level initiatives can play a central role in triggering wide and innovative approaches to demographic change. In particular, it appears important to better understand the role of metropolitan regions attracting an increasing proportion of the European population in the functioning of national economies. This presupposes that a European discourse on desirable settlement patterns is developed, and that a corresponding set of instruments to promote these patterns is elaborated and implemented.

Irrespective of territorial arrangements of production and settlements, ageing and demographic change generates additional costs and organisational challenges for LRAs. They can best respond to these challenges by being proactive in mapping them and devising pro-active solutions to address them. In doing so, consultations with private and social economic actors are crucial to ensuring a sustainable, long-term solution to local demographic challenges. Given the diverse division of responsibilities between public authorities at different levels depending on the SGI considered and the Member State, guidance for such ‘public entrepreneurship’ is difficult to formulate at the European level. However, in the face of demographic challenges, an enhanced focus on complementarity is called for. This includes vertical complementarity between levels, from the European to the local, as well as horizontal complementarity between territories. Further reflections may therefore be developed on the preconditions of complementarity in terms of institutional frameworks, benchmarks of successful public management and principles of allocation of resources for services to the population and investments related to this service provision.

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